

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

LIBRARY

RECEIVED

SEP 16 1912

U. S. Department of Agriculture



Entered as second-class matter June 26, 1886, at the Post Office at Chicago, Illinois, under Act of March 3rd, 1879.

A MONTHLY JOURNAL DEVOTED TO THE ELEVATOR AND GRAIN INTERESTS.

PUBLISHED BY
Mitchell Brothers Publishing Co.

VOL. XXXI.

CHICAGO, ILLINOIS, SEPTEMBER 15, 1912.

No. 3.

One Dollar Per Annum.
SINGLE COPIES, TEN CENTS.

IF THE PLIES

of your belt separate like
this it wasn't



"R. F. & C." Solid Woven Rubber Belt

The "R. F. & C." gives MAXIMUM of strength and
MINIMUM of stretch. Eliminates all belt troubles.

A sample will prove most convincing evidence;
send for it.

W. H. SALISBURY & CO., Inc.

Pioneer Rubber Belt Manufacturers in the West
CHICAGO, ILLINOIS



New York Boston
San Francisco

Be sure its the

"MOHAWK"

brand of rubber
belting.

Order of your build-
ing contractor or
dealer or write us
direct.

THE SHORT CUT TO QUICK RETURNS

GILT-EDGE SERVICE AND TOP PRICES

When You Ship to

J. H. DOLE & COMPANY

CHICAGO, ILLINOIS



**MINNEAPOLIS SEED
COMPANY**

SEEDS

Timothy Our Specialty

MINNEAPOLIS, - MINN.

TRADE MARK REGISTERED IN U. S. A.



Power Transmission Plants

Furnished complete for Mills, Factories, etc. It will pay you to
investigate our line before buying, as we can save you money and
give you first class material.

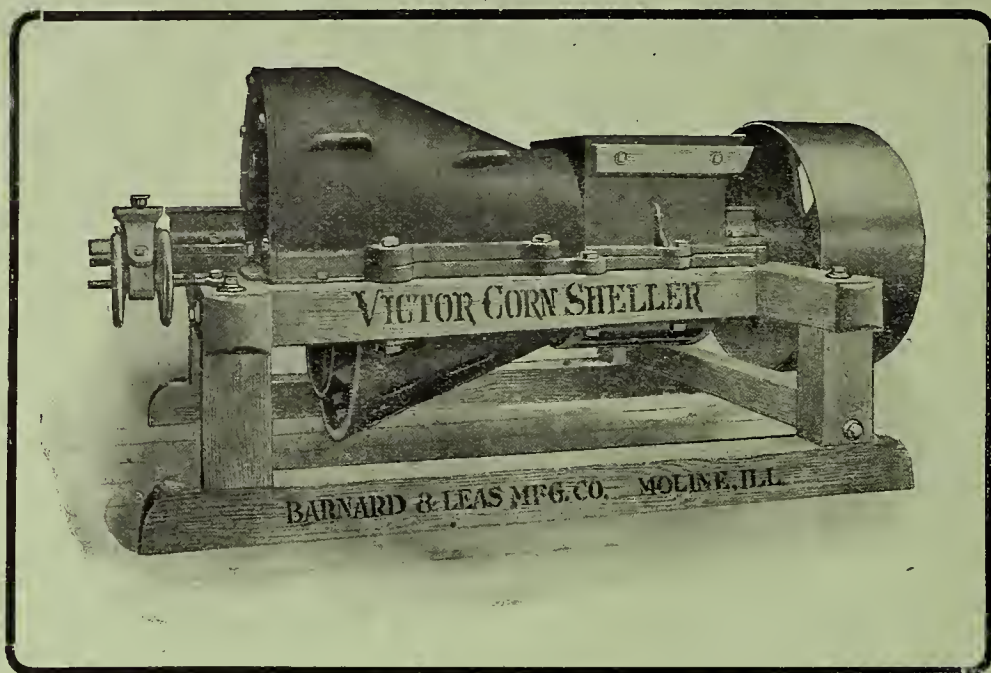
Try "JONES" for quick deliveries and right prices.

W. A. Jones Foundry & Machine Co.

1411 North Ave. Chicago

Transmission Experts

Everything for Corn



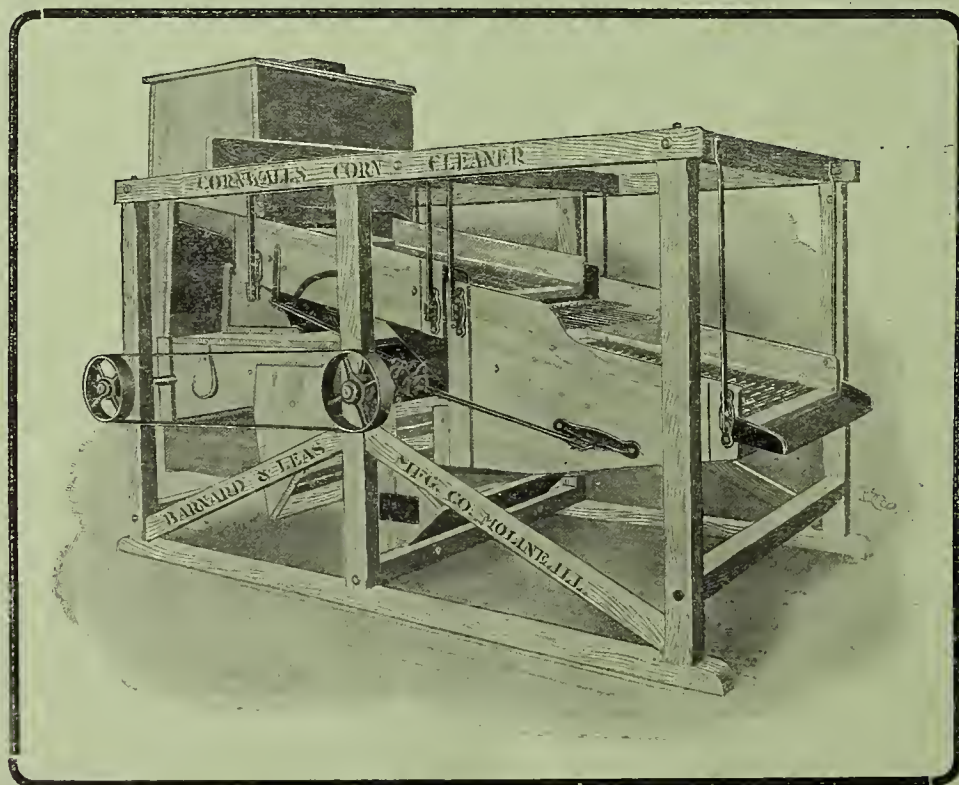
We furnish complete outfits for corn mills, including Shellers, Cleaners, Grinders, Sifters, etc. Our line includes such standard machines as the Victor Corn Sheller, known everywhere for its durability, capacity and efficiency.

The Cornwall Corn Cleaner, the first of the sieve cleaners, and the one with the patent finger sieve that cannot clog.

Barnard's Ball Bearing Feed Mills, which effect a saving in power alone of over one-half. The Plansifter Scalper and other sifters.

Dust Collectors for every purpose and supplies of all kinds.

SEND FOR LATEST LITERATURE



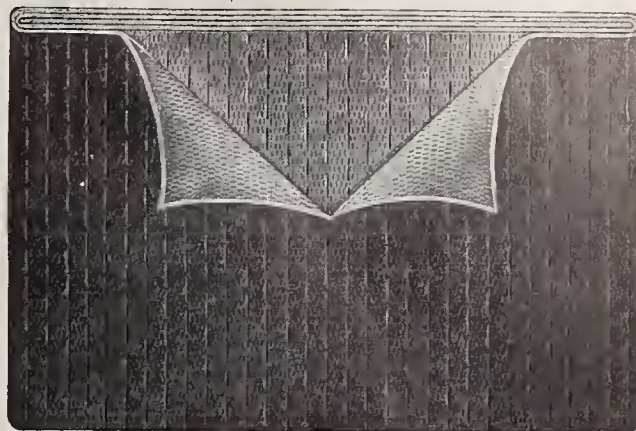
BARNARD & LEAS MFG. CO.

MILL BUILDERS AND
MILL FURNISHERS

ESTABLISHED 1860. MOLINE, ILLINOIS, U.S.A.

"ANTISULPHO"

A Special Belt for Grain BLEACHERY Service, ELEVATING and CONVEYING



Sulphur fumes have no effect whatever on ANTISULPHO BELTING—one installation has outlasted high grade rubber belting **THREE TIMES** and is still in service apparently as **GOOD AS NEW**.

If you operate a BLEACHERY and need a belt,
ANTISULPHO will **SAVE YOU MONEY**.

"ANTISULPHO" is of the same general construction as **REXALL DOUBLE STITCHED BELTING**, our Standard Grain Belt for **ELEVATING** and **CONVEYING**.

Scientifically built. No rubber to deteriorate.
Will outlast the best rubber belt **TWO TO ONE** and **COSTS LESS**.

IMPERIAL BELTING COMPANY

Manufacturers

CHICAGO

NOT A BILL OF EXPENSE BUT A SOURCE OF REVENUE

Enables
Shippers
to
Collect
Claims
—
Requires
No
Repairs
—
Occupies
Small
Space
—
Most
Economical
to
Install



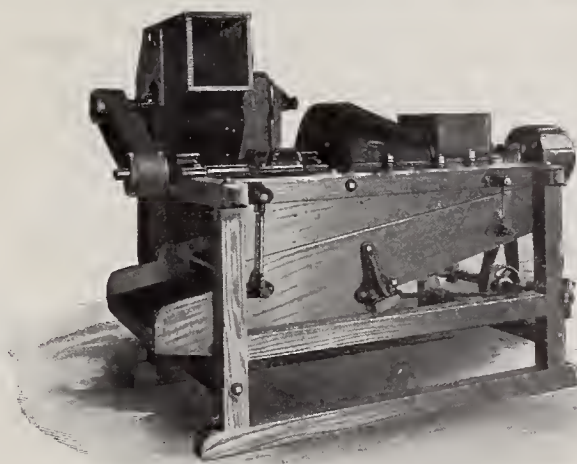
PORTABLE BAGGER

Write for Catalog.

No Bother
to
Operate
—
Never
Gets Out
of
Order
—
Will Not
Rust
or
Wear Out
—
**60 Days'
Trial**

National Automatic Scale Co.
Bloomington, Illinois

Let Others Tell The Story



THE SIDNEY COMBINED SHELLER AND CLEANER

Burrton, Kan., Feb. 16, 1912

Gentlemen:—

The Combined Sheller and Cleaner purchased of you in November, 1910, has given excellent satisfaction. It shells the corn off the cob good, and cleans it in A No. 1 style. We have shelled several thousand bushels of corn with this sheller and if needing another Machine of this kind would make the order a repeater of the order of November, 1910. Very truly yours,

THE BURRTON GRAIN COMPANY

Per C. A. Dundon, Mgr.

Write for Complete Catalogue No. 25

THE PHILIP SMITH MFG. CO., Sidney, O.

We manufacture the most complete and up-to-date line of Corn Shellers in the world.

A Complete Stock at Enterprise, Kans.

WE WERE THE FIRST TO BRING OUT A

Single Steel Disc Feed Grinding Mill

that has proven a perfect success.

NEARLY 600 IN USE

The cost of installing is $\frac{2}{3}$ less than any other high class Grinding Mill on the market.

The stock ground on the American Special Chopper is soft and bulky and just the kind of ground feed required for stock feeding.

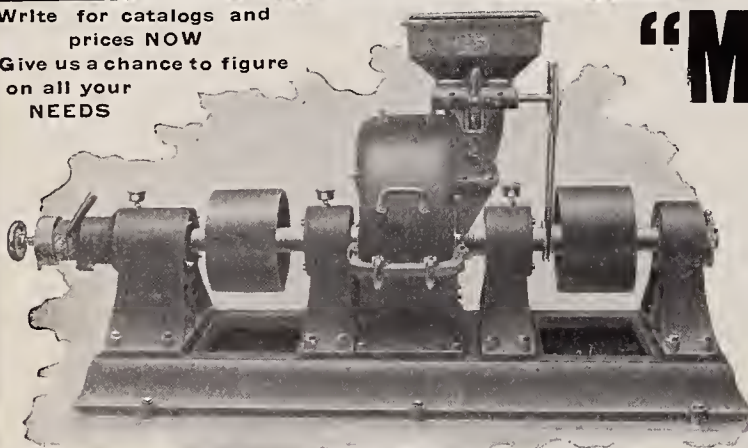
The Grinding Plates used on the American Special are fully covered by patents.

Write for Catalog and prices.

THE AMERICAN MACHINERY COMPANY, PORT HURON, MICH.



Write for catalogs and prices NOW
Give us a chance to figure on all your NEEDS



MONARCH BALL BEARING, BELT DRIVEN ATTRITION MILL

We manufacture the Largest, Most Improved, and Most Complete Line of Machinery for Flour and Feed Mills, Grain Elevators, etc., in the World.

"MONARCH" BALL BEARING

FEED GRINDERS WILL ALWAYS

→ **SOLVE ALL YOUR TROUBLES** ←

A SAVING of 35% to 55% in POWER

DON'T FORGET

DIRECT CONNECTED ELECTRICALLY MOTOR DRIVEN

Ball Bearing Feed Grinders and Corn Crackers OUR SPECIALITY

You cannot afford to operate your plant without one of these "Monarch" Mills, because of the large amount of power saved, or the tremendous increase in capacity, that you will obtain with your present power, guaranteed never to get out of tram. TRY ONE OF THESE MILLS NOW. It DON'T pay to wait. **DO IT NOW.**

SPROUT, WALDRON & CO., THE MILL BUILDERS P. O. BOX 320 **Muncy, Pa.**

WESTERN OFFICE

MONADNOCK BLK. (402) CHICAGO

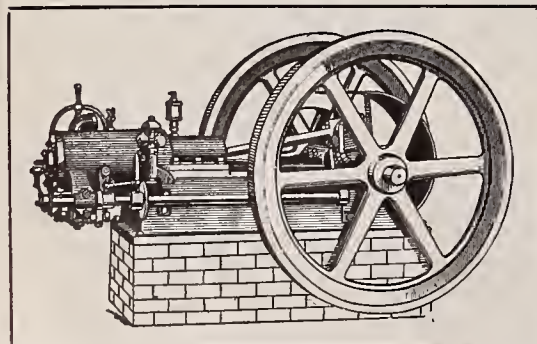
Branch Offices

620 35th St.
Des Moines, Iowa

302 D. F. Walker Bldg.
Salt Lake City, Utah

1208 4th St South
Minneapolis, Minn.

The Lambert Gasoline Engine



Operated without the use of Battery

STATIONARY and PORTABLE

Thousands in Use

Thoroughly well Built and Fully Guaranteed.

Write for Catalog and Prices

THE LAMBERT GAS & GASOLINE ENGINE CO.

Anderson, (East Side)

INDIANA

No More Overflowing Bins in Your Elevator — No More Choked Belts, Causing Trouble and Loss of Business — No More Fires Caused by Friction on Choked Belts.

All these troubles and worries of the country elevator man can be avoided if you will install our

Grain Elevator Automatic Alarm


It is inexpensive, reliable, cannot get out of order, needs no attention and is always a silent friend, willing to work whenever it is called upon from the above causes. Warns the elevator man by bells ringing the moment the bin is full or the grain running back down the leg causing the choked belt.

YOU CANNOT AFFORD TO BE WITHOUT IT IN YOUR ELEVATOR

Write us for Pamphlet and Information.

Grain Elevator Specialties, Ltd.,
GRAIN EXCHANGE, WINNIPEG, MAN.


A good elevator carpenter can install the device in your elevator in one day



Section of
Old Style Flight



Section of
Helicoid Flight



Section of
Helicoid Flight

HELICOID

Helicoid conveyor has a stronger flight and a heavier pipe than the same diameter of old style conveyor, and

Helicoid flight and pipe are put together so they support and strengthen each other.

Helicoid flight has a shovel edge. Other has blunt edge.

Helicoid flight is one continuous strip of metal end to end of pipe. Other is short sections lapped and riveted together every turn or half turn around the pipe.

Helicoid is a smooth, nicely-balanced spiral, and has no joints to wear out and open up.

Helicoid requires fewer repairs, and less power to drive it.

Helicoid costs no more than inferior kinds of conveyor; it's all-round satisfaction at the same price.

Catalog
34

Helicoid conveyor has a stronger flight and a heavier pipe than the same diameter of old style conveyor, and

Helicoid flight and pipe are put together so they support and strengthen each other.

Helicoid flight has a shovel edge. Other has blunt edge.

Helicoid flight is one continuous strip of metal end to end of pipe. Other is short sections lapped and riveted together every turn or half turn around the pipe.

Helicoid is a smooth, nicely-balanced spiral, and has no joints to wear out and open up.

Helicoid requires fewer repairs, and less power to drive it.

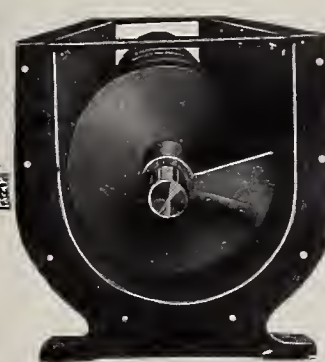
Helicoid costs no more than inferior kinds of conveyor; it's all-round satisfaction at the same price.

Ask about our Steel Conveyor Boxes, too.

H. W. Caldwell & Son Co.

17th St. and Western Ave., Chicago

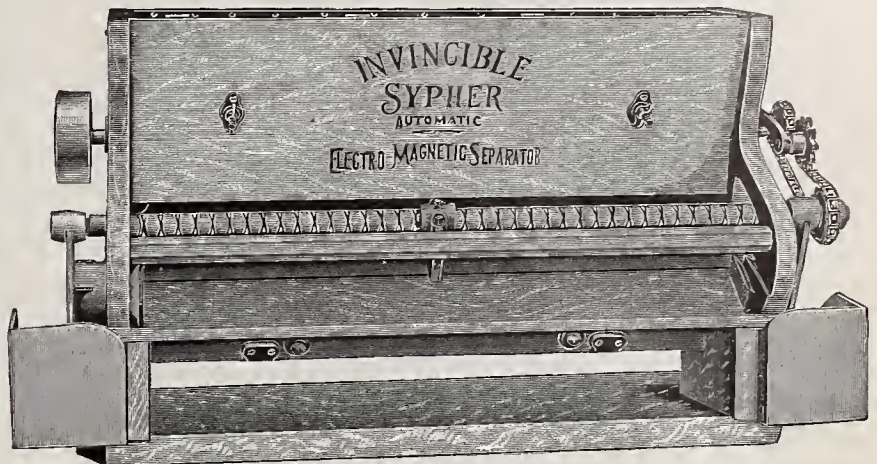
BRANCH OFFICE



New York:
Fulton Bldg. Hudson
Terminal,
50 Church St.

THE INVINCIBLE-SYPHER

Electro Automatic Magnetic Separator



Very Durable—Small Consumption of Current

Will positively remove all iron from the grain.

Has retaining force of 500 pounds, making it impossible for any iron to pass it.

This machine does not deteriorate with age—on the contrary actually becomes more efficient with use.

We are prepared to furnish a small inexpensive dynamo for it where current is not available.

INVINCIBLE GRAIN CLEANER COMPANY

SILVER CREEK, N. Y., U. S. A.

— REPRESENTED BY —

F. J. Murphy, 225 Exchange Bldg., Kansas City, Mo.
 The Strong-Scott Mfg. Co., Minneapolis, Minn.
 C. L. Hogle, 526 Board of Trade, Indianapolis, Ind.
 Frank E. Kingsbury, Terminal Hotel, St. Louis, Mo.
 J. J. Crofut & Co., 613 McKay Bldg., Portland, Ore.
 Chas. H. Sterling, Jefferson House, Toledo, Ohio
 C. Wilkinson, 6027 Chestnut St., Philadelphia, Pa.
 F. H. Morley, 512 Traders Building, Chicago, Ill.
 McKain Mfg. Co., Los Angeles, Cal.
 Buckley Bros., Louisville, Ky.

“EUREKA”

CORN DRYER

Piqua, Ohio, Feb. 26, 1910.

The S. Howes Company, Silver Creek, N. Y.

Gentlemen:—We used the Corn Dryer on about thirty cars last fall and found that you had more than exceeded your guarantee.

Our broker said we had the best corn that had arrived in that section.

We would not be without the Dryer at any cost.

Very truly yours,

C. N. ADLARD.

Catalog Free



The S. Howes Company
Silver Creek, New York



DIXON'S SILICA-GRAPHITE PAINT

Since then it was repainted only twice with the same paint.

Letter No. 17-B on request.

JOSEPH DIXON CRUCIBLE CO.
Jersey City, N. J.

Fumigation Methods

By W. G. JOHNSON

Contains full directions for Fumi-
gating Mills and Elevators.

313 Pages. Price \$1.00.

Mitchell Brothers Publishing Co.
431 S. Dearborn St., Chicago

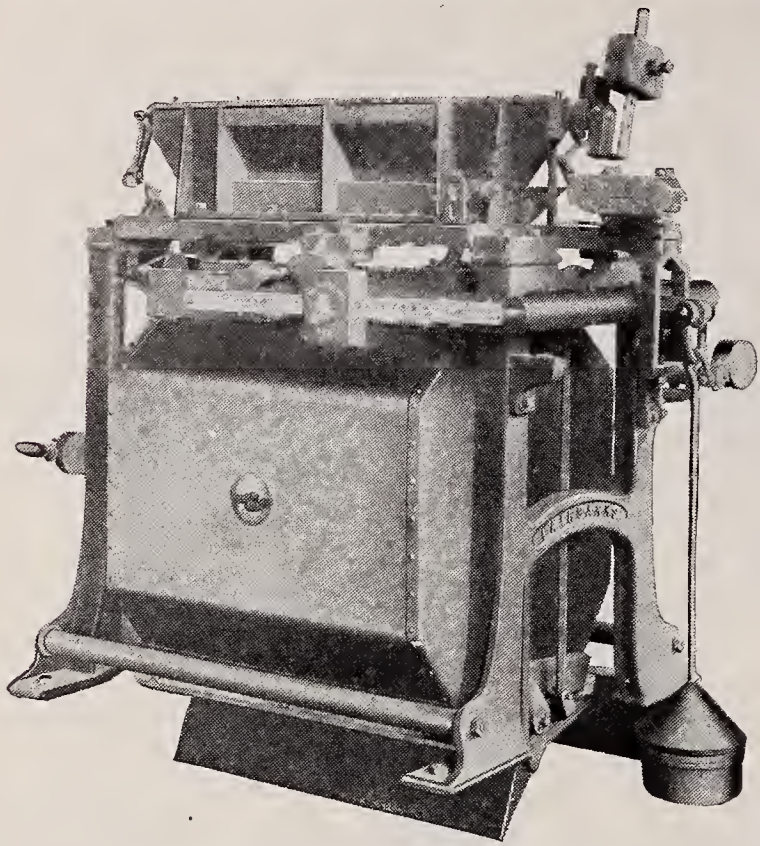
ELWOOD'S GRAIN TABLES

Show the value of any number of bushels or pounds of WHEAT, RYE, OATS, CORN OR BARLEY at any given price from 10 cents to \$2.00 per bushel. One of the most useful books ever offered to millers. Indorsed by prominent millers and grain dealers. Bound in cloth, 200 pages. Mailed on receipt of price.

\$1.25

Mitchell Brothers Publishing Co., 431 S. Dearborn St., Chicago, Ill.

Fairbanks Automatic Scales



Are Guaranteed to Weigh Accurately.

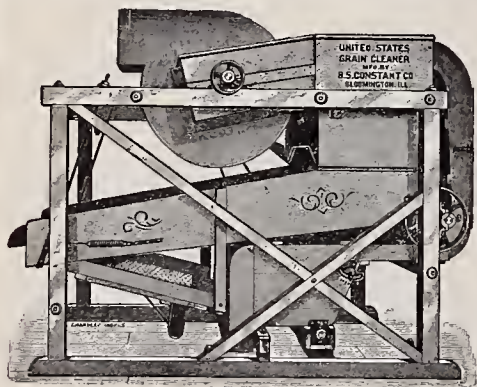
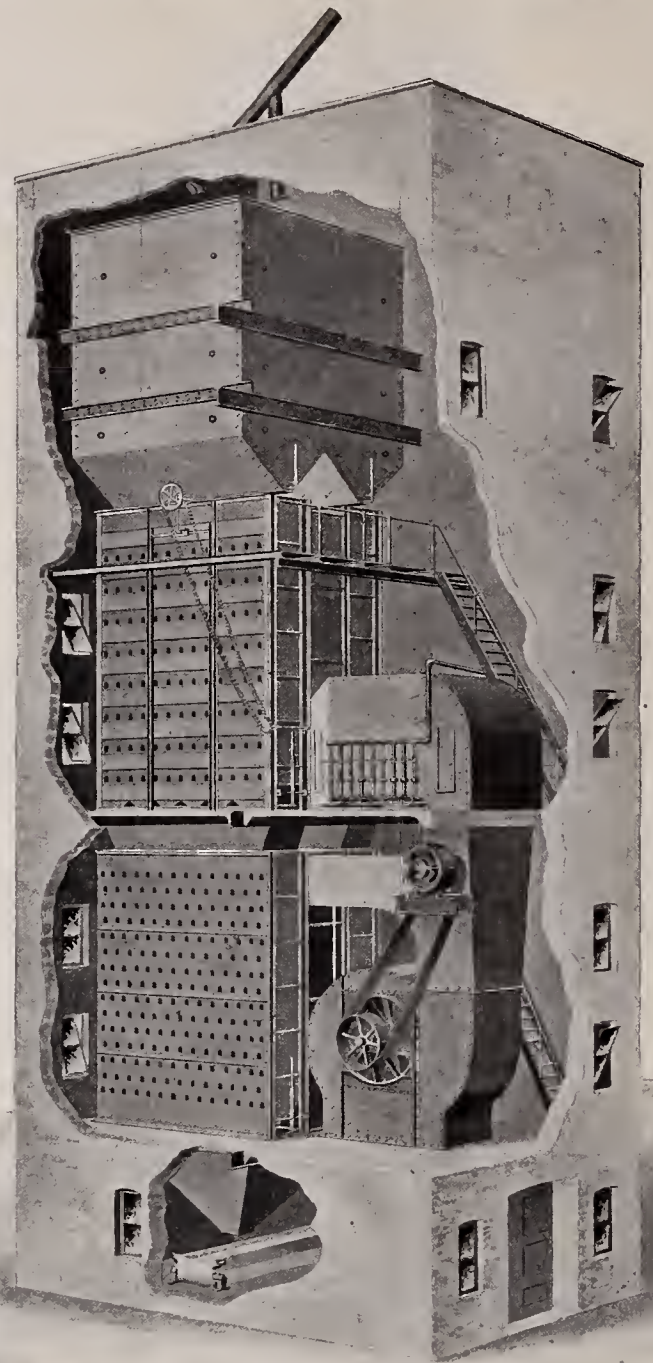
They are simple, strong and durable. Operate entirely by gravity. Handle grain rapidly through a double compartment hopper and will do your weighing cheaply, quickly and accurately. They will pay for themselves very quickly in saving time, labor and mistakes in your elevator. Send for Catalog No. 544HW.

Fairbanks, Morse & Co.,

Wabash Avenue and Eldredge Place

CHICAGO, ILL

Wagon and Portable Scales, Gasoline Engines, Pumps, Water Systems Electric Light Plants, Windmills, Feed Grinders



THE U. S. Grain Cleaner

is the best in the Union and should be in the top of all elevators where Corn, Oats and Wheat are shipped.

Higher Grades—Higher Prices.
Long life machine.
Ring or Chain Oiling Bearings.
Balanced Eccentrix.
Five Separations and
All the Corn Saved.



The Constant Safety Ball Bearing Man-lift

the most satisfactory connecting link between Cleaner and Sheller.

Best made.
Easiest and safest.
Adjustable Brakes
which we guarantee.

State distance between floors and get our

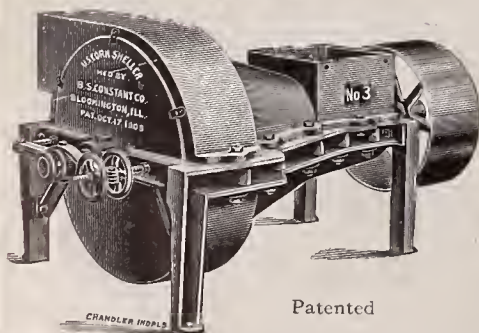
Net Price

U. S. Corn Sheller

Fan Discharge, over or under, right or left hand.

Iron or Wood Frame.
No Lower Hoppering.
Cheapest Installed.
Quickest and Cheapest Repaired of any Sheller on the market.

Send for a Catalog.



Patented

B. S. CONSTANT CO.
Bloomington Illinois

In Times of Peace Prepare for War

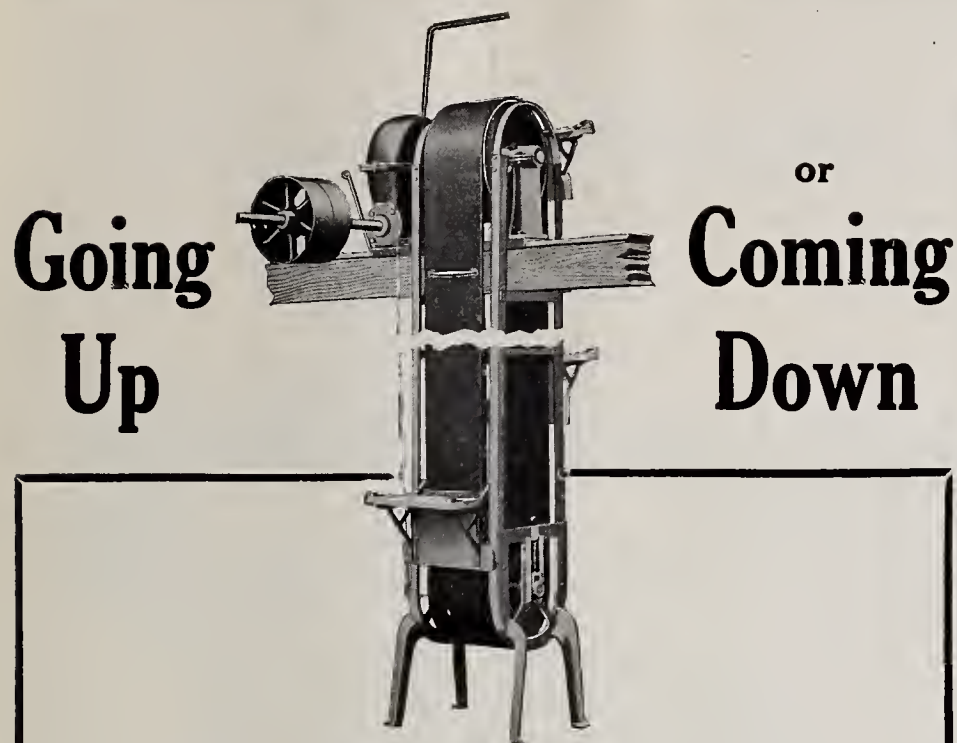
THIS saying applies as well to all industrial enterprises as it does to war between nations. They who are found prepared to take advantage of a crisis will be found successful, as well in business as war. If a nation is threatened with a war, they immediately commence to get the latest improvements in guns and battleships and put forth every effort to be prepared to meet the enemy with the latest improvements in the game of war.

Therefore, we say in times of peace prepare for war. Get a Morris Drier and you will be prepared to save your grain when the time comes. You insure your grain against damage by fire. Why not insure it against damage by water? To do this install a Morris Drier. Ask for catalogue.

Morris Grain Drier Co.

Manufacturers of

Grain Driers, Coolers and Conditioners
507-511 Chamber of Commerce, MILWAUKEE, WIS.



YOU or your employes are constantly going from one floor to another. The stairway is inconvenient and wears you out needlessly.

The Nordyke & Marmon Company Employee's Elevator

quickens and make easy your goings and comings. It enables you or your men to give closer personal attention to your work. This means much to you.

The N. & M. Co. Employee's Elevator frame is strongly built of steel and iron. An endless belt with steel framed platforms runs continuously from one floor to another. This elevator is made up in strong steel sections. It is equipped with wide faced pulleys, easily oiled. These pulleys are located on strong steel mandrels.

This elevator is built in sizes to suit your needs. Write for description and prices.

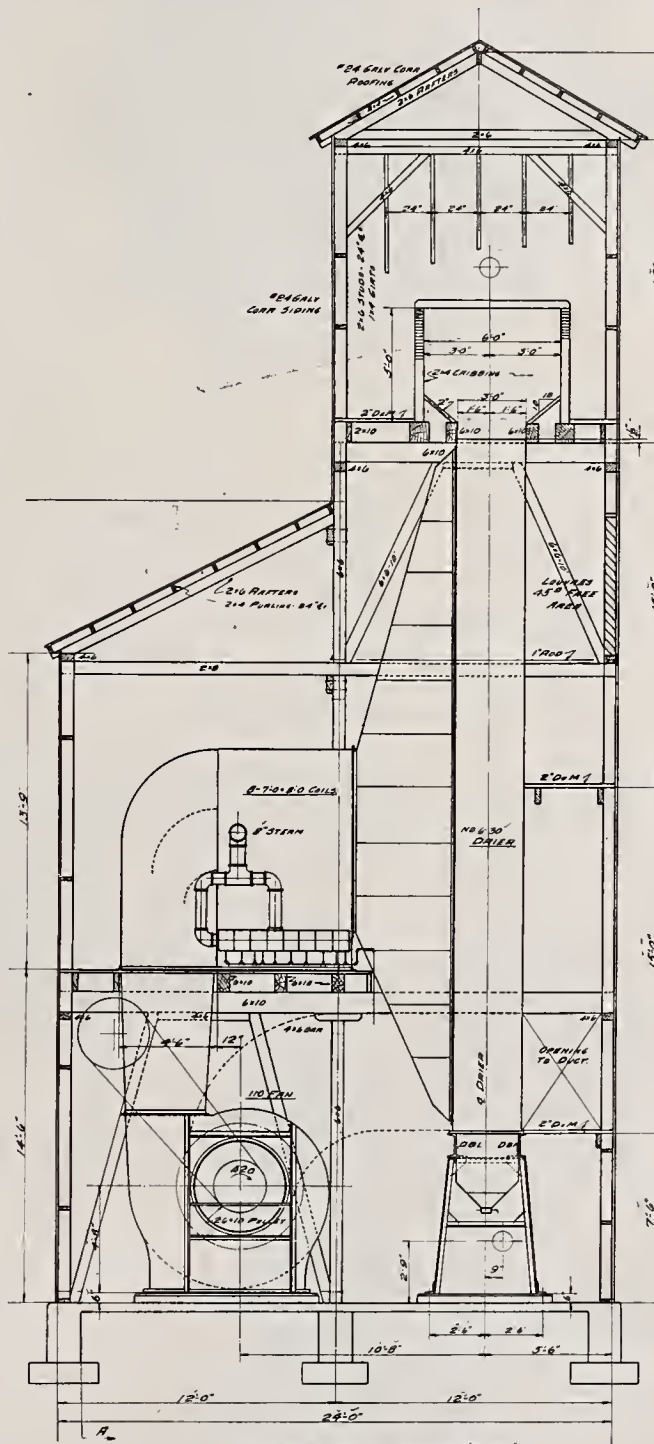
Nordyke & Marmon Company

AMERICA'S LEADING MILL BUILDERS

INDIANAPOLIS

INDIANA

THE ELLIS DRIER CO.



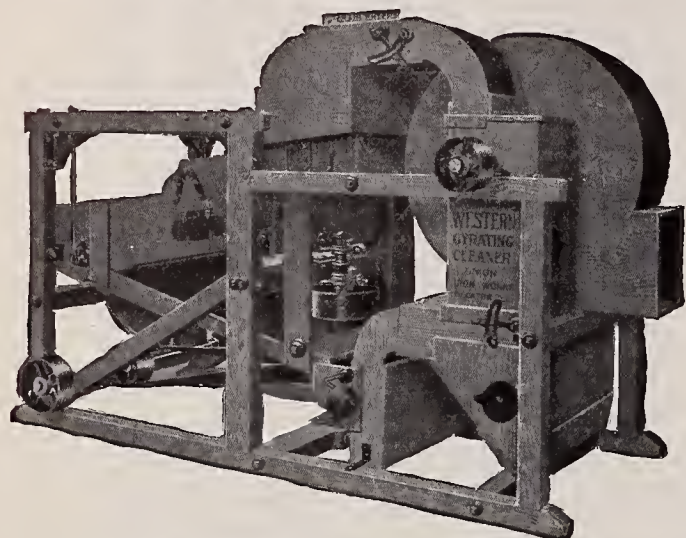
Cross Section of Drying Plant for
A. Waller & Co., Henderson, Ky.

The plant as shown above will have a capacity of 600 bushels per hour and on light drying will handle 800 to 1000 bushels per hour. The cooler is of very large capacity and is designed to care for the drier when removing small percentages. As an entire cold air machine the plant will have a capacity of 4 to 5 thousand bushels per hour. Process patents covering the re-utilization of exhaust air have been incorporated in this plant.

Postal Telegraph Building
CHICAGO **U. S. A.**

WESTERN

machinery has played an important part in handling the world's Grain crop for nearly half a century.



The Western Gyrating Cleaner

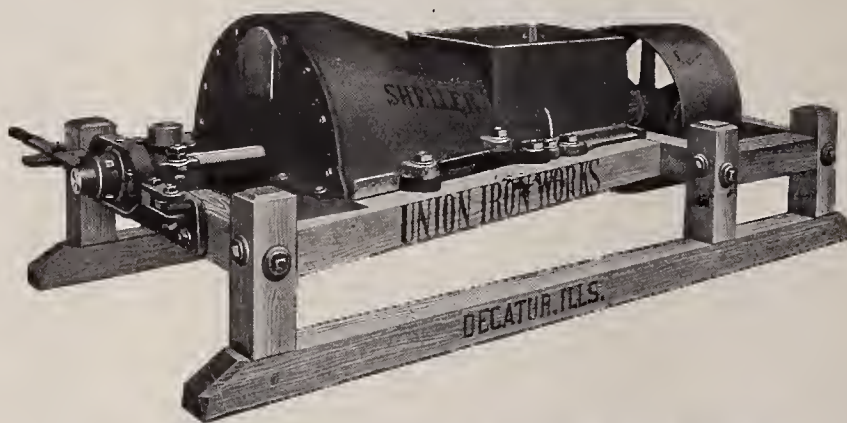
We manufacture everything needed for the grain elevator, from pit to cupola.

Write for Catalogue.

UNION IRON WORKS

Our SHELLERS and CLEANERS

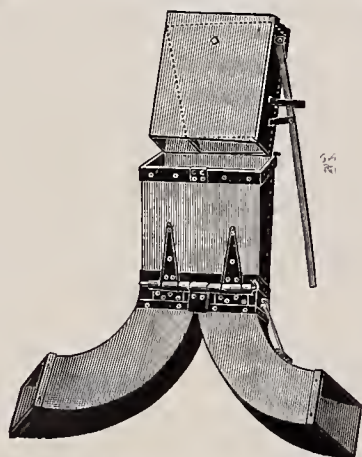
are the recognized standard wherever corn is grown.



The Western Regular Warehouse Sheller

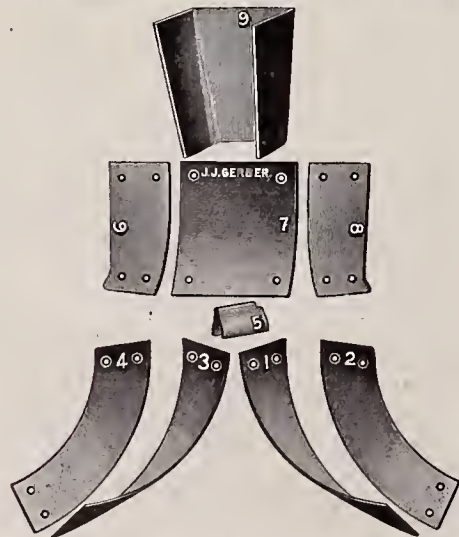
DECATUR, ILLINOIS

THE GERBER BIFURCATED GRAIN SPOUT



The only Spout made for trimming cars that will load both ends at the same time. It is made very heavy and has cast linings.

Cast Linings for Bifurcated Grain Spout



When ordering cast linings give number of parts required.

For particulars write

J. J. GERBER - MINNEAPOLIS, MINN

16th Annual Convention Grain Dealers National Association

Norfolk, Va., October 1, 2, 3.

The Norfolk & Western Railway, the only line from the West entering the City of Norfolk direct, has been selected by the Board of Directors of the National Association as the **Official Route**, and desire that the delegates, their families and friends attending the convention, take advantage of the special train arrangements and move as an exclusive party from Cincinnati and Columbus. From such points in the interior where the number will justify special trains or through Pullmans will be operated.

Co-operate and assist the officers of the Association in carrying out their plans by having your tickets routed via the Norfolk & Western Railway.

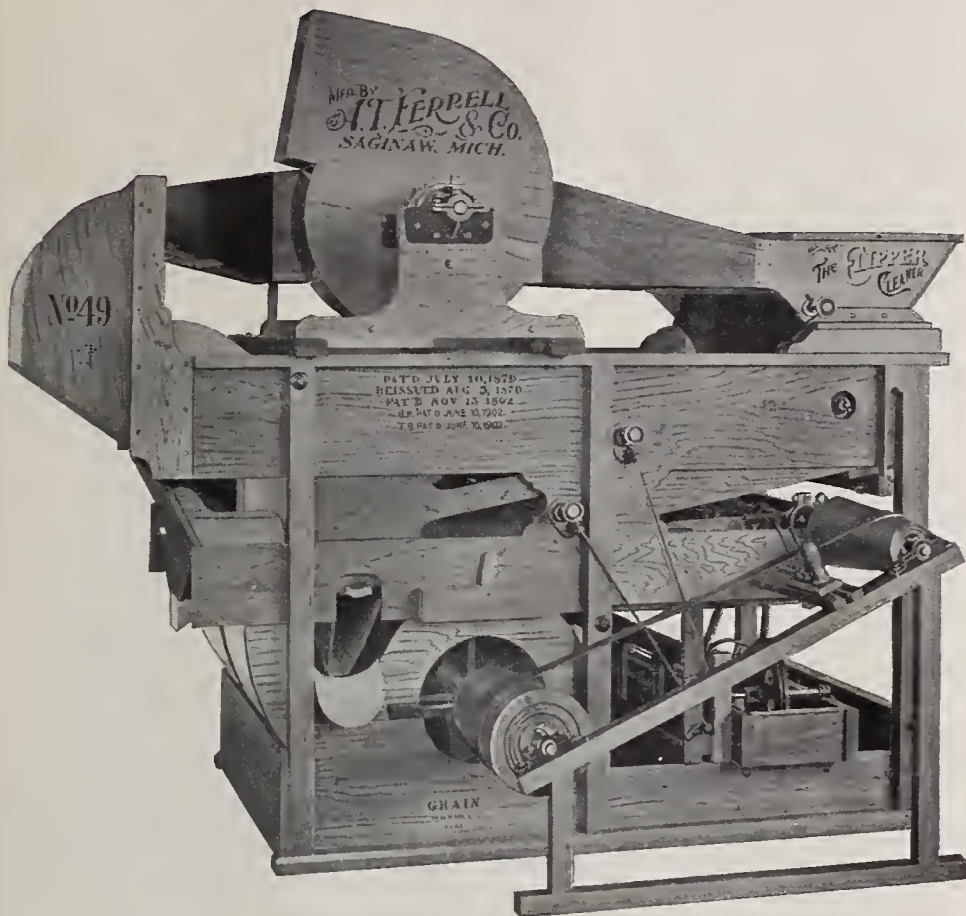
Communicate with the nearest of the undersigned representatives of the Norfolk & Western, who will furnish full information as to routes, fares, etc., and arrange for Pullman reservations.

W. E. Hazlewood
Traveling Passenger Agent
505 Board of Trade Bldg
Indianapolis, Ind.

H. G. Grant
Traveling Passenger Agent
308 Marquette Bldg.
Chicago, Ill.

John L. Bladon, Division Passenger Agent
Cincinnati or Columbus, Ohio

"Clipper" Grain and Seed Cleaners



The No. 49 Clipper is a first-class grain receiving cleaner for local elevators. It has large capacity, is solidly built, is dustless and will make the most difficult separations. It is simple, strong, convenient and will not easily get out of order. It requires less for repairs than any other grain cleaner on the market and is always ready for business. Ours is the only successful combination cleaner on the market. We give a 30-day guarantee with each machine.

If you are looking for the best cleaner, we would like to show you what we have. Our line of clover seed cleaners is strictly up-to-date. All sizes and capacity. We can furnish machines with Traveling Brushes, Air Controller and all modern improvements. Send for catalog and discounts.

A. T. FERRELL & CO., - SAGINAW, MICH.



A Profitable Mill for Profit-Seeking Millers

There's money in the feed business.

But the only way you can get it—that is, get more of it than you've been getting, is to show the "other fellow's" customers that your brand of feed is of a better quality than his.

What people want now-a-days is **quality**. And it's a dead certainty they're going to deal with the man who gives them the most for their money.

You could wear a cheaper hat than you do. But you don't.

Why?

Simply because you prefer paying a dollar or so more and getting **quality**.

The same principle holds good in the feed business.

Most persons will gladly pay a little more for a good, clean-cut feed than pay ordinary prices for ordinary feed.

Therefore, put quality into your feed and—
Get More Business.

To produce high-grade feed you must own a high-grade mill.

Look where you may and as long as you will, you will never find a mill that is capable of grinding out feed possessing so high a degree of quality as the **Wolf Feed Mill** is capable of doing.

That's why so many millers and feed-mill owners who have installed this mill are enjoying such an increase in business.

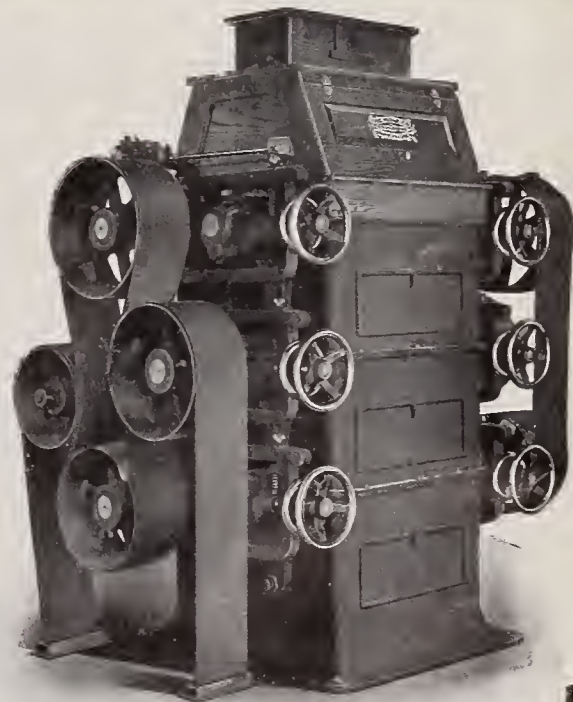
The **Wolf Feed Mill** is built to produce clean-cut feed—not to squeeze, mash and tear the stock, but to **cut**.

You can greatly increase the demand for **your** brand of feed if you care to.

The secret lies in the installation of a **Wolf Feed Grinding Mill**.

If you want to know how this mill is built and why it produces so high a grade of feed—

Mail the Coupon. Mail it now.



When writing for particulars, please state whether you are interested in a two-pair high or a three-pair high mill.

**THE WOLF COMPANY,
Chambersburg, Pa.**

Gentlemen:—

Please send me full particulars regarding the Wolf Grinding Mill. Two Pair High. Three Pair High.

Name

Street and No

Post Office..... State.....

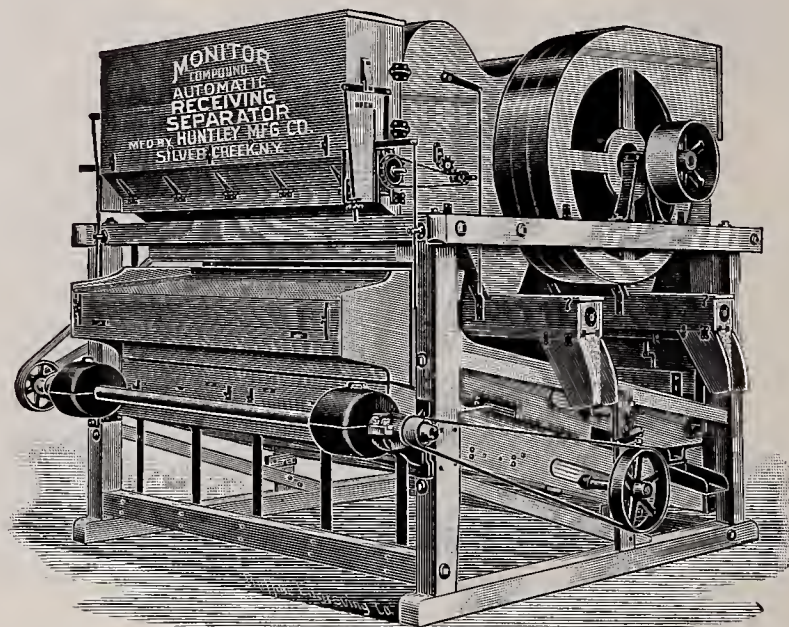
THE WOLF COMPANY, Chambersburg, Pa.

"MONITOR"

The first "two-fan" Receiving Separator

Its best vital features
protected by patents

There are
more imitations
of the "Monitor"
than any receiving cleaner
built in North America today



This is our new *automatic* type, model "B." In selecting this machine the purchaser has a choice of three styles of improved bearings, namely, ball bearings, deep reservoir ring oiling or deep reservoir chain oiling bearings.

How
We established "Monitor"
two-fan separators as the world's standard

A true narrative that takes you back to the early spring of 1887

The first two-fan grain cleaner built in the United States was constructed here at our factory—this was back in 1887—March 19th to be exact—that machine was a "Monitor" Receiving Separator. (And by the way, after a quarter of a century of daily service it is still used by the original purchasers.) Now then note, that here at our factory *two-fan* separators *originated*—that we were the *first* to conceive, the *first* to experiment, the *first* to develop and perfect, the *first* to make practical the use of *two-fan* grain cleaners. For years and years we were the only manufacturers of *two-fan* grain cleaners, all other makes having but *one fan only*. During that period "Monitor" *two-fan* grain cleaners forged steadily ahead and survived "anything-to-destroy-you" competition—survived because their phenomenal work marked a new era in grain cleaning machinery. Urged on by one success after another in mastering knotty, complex cleaning problems one-fan cleaners *could not handle*, we devoted our entire efforts to perfecting *two-fan* "Monitors" (it is here we desire to say we have *never built a one-fan* receiving separator). And then after a space of several years we see the "Monitor" leading all of the world's makes of grain cleaners—at once the most capable and the most economical type of grain cleaning machine. We see grain cleaner builders who had for years condemned *two-fan* machines *making two-fan machines themselves*; naturally one would infer they were forced to it, *so they were* as the "Monitor" *two-fan* grain cleaners had over-topped their *one-fan* machines in every desirable feature. And today we see a majority of the new type of grain cleaning machines are built *two-fan* type; moreover, we notice that many, most of them, resemble the "Monitor" *in outward appearance* as to the arrangement of the fans and air work construction—and so, whereas after years and years of but one *two-fan* cleaner (the "Monitor") there are today a great many—and still it is well to note; we have spent a quarter of a century in developing and perfecting *one type* of grain cleaners—*two-fan* machines—there are more "Monitor" *two-fan* separators in use today than any other make on the face of the earth—there is no other grain cleaner anywhere near approaches the wonderful work of the "Monitor"—for the simple reason that the *vital* functions of the *two fans* of all "Monitor" Separators are patent protected. This is why we can guarantee superior, closer and more economical air work than with any receiving cleaner the world has yet produced. And those several other important "Monitor" improvements, recent inventions—why that's still another story—our new catalog will tell you.

HUNTLEY MFG. CO., Silver Creek, N. Y.

The World's Largest Manufacturers of High Class Grain and Seed Cleaning and Grading Machinery

The American Elevator and Grain Trade

A MONTHLY JOURNAL DEVOTED TO THE ELEVATOR AND GRAIN INTERESTS.

VOL. XXXI.

CHICAGO, ILLINOIS, SEPTEMBER 15, 1912.

No. 3.

MILL STORAGE AT NOBLESVILLE, IND.

One of the leading mills of Indiana is that of the Noblesville Milling Co., at Noblesville, of which Charles Jenkins, both a buckeye and a hoosier, is manager, for Mr. Jenkins is at home both in Ohio and Indiana. He has conducted a very successful business since he took the management of the Noblesville mill, a few years ago, and one of his recent additions is the new storage tanks, finished on July 10 by James Stewart & Co. of Chicago.

The tanks were begun in April and they were completed in a little over 60 days. They have a combined capacity of 250,000 bushels, and consist of ten circular tanks and four interstitial tanks. The circular tanks are 25 feet inside diameter and 90 feet high, holding about 32,000 bushels each. The four interstitial tanks afford storage for about 8,000 bushels each. The concrete walls of the tanks are seven inches thick.

Grain is delivered to the tanks by belt conveyor

in an overhead gallery with capacity for 9,000 bushels per hour. This gallery has a length of over 52 feet, that being the distance of the tanks from the mill. A tunnel running underneath the tanks contains the belt conveyor which delivers the wheat to the mill. It has a carrying capacity of 9,000 bushels per hour. The tanks are absolutely fireproof. The spouting and conveyor systems were furnished by the Nordyke & Marmon Co. of Indianapolis.

Pembroke W. Pitt of the failed grain commission firm of Pitt Brothers & Co., Baltimore, was on August 22 sentenced to five years and six months in jail for obtaining money by means of fraudulent bills of lading on which it was alleged he realized about \$300,000. Pitt had pleaded guilty to one of the thirty indictments returned against him. He is now employed in the shirt factory, where he was entered as a clerk to keep record of material coming in and finished work going out.

[For the "American Elevator and Grain Trade."]

THE FLORIDA VELVET BEAN.

ONE OF THE AGRICULTURAL PLANTS OF LARGE USE IN THE SOUTH, AND BUT LITTLE KNOWN NORTH.

BY N. L. WILLET.

The South today is said to be the most prosperous part of our country. The basis of its wealth is agriculture. While Cotton is there King and the leading staple, yet it is not probably the specialty in such a degree as is the potato crop in Maine or the corn and wheat crops in the Middle West and the Northwest. Nowhere else in this land can such a multitudinous variety of crops—a whole legion of them—be grown as in the South. There is the widest range of soil conditions, oftentimes even in one state; the climate is such that vegetation grows rank and riotous.

In going into a new country, the observant man is not so much interested in its rivers, mountains and plains as in its plant life—its determining fac-



NEW GRAIN STORAGE TANKS OF THE NOBLESVILLE MILLING CO., NOBLESVILLE, IND.
James Stewart & Co., Chicago, Engineers and Contractors.

tor. All of us may not be interested in the South *per se*; but what man of us is not in some way a student and lover of plant life? He who walks here finds always marvel and enchantment.

The South carries great staple crops that are all unknown in the North. Northern seedsmen do not list them in catalogues, northern agricultural journals make no mention of them, but even to a Northerner these plants are well worth while the knowing. And one of the most remarkable of these is the Florida velvet bean.

The value of this crop is found both in vine and beans. As a producer of both, it outranks per vine all other crops in the South. As a forage plant the world has not its superior. Its rank growth can be seen by the following: A Georgia peach orchard man planted velvet beans in his orchard for fertilizing purposes. In October he wrote me in great alarm, saying that his velvet beans had grown all over his peach trees; the whole orchard was buried beneath them and totally lost to sight. He thought he had lost his orchard. He was greatly relieved, however, when he recovered it through the November frosts.

The vine stem has a diameter like that of your little finger; the leaf is about the size of one's hand. Every four feet each way is close enough for planting. The vines stand about three or four feet high, and then run in every direction, sometimes for fifteen, sometimes for twenty feet. Given a support, such as a tree or arbor, they may run forty feet. For this reason, in forage fields, corn is planted with the beans, the cornstalks affording support which keep the beans from the ground and also increase the amount of foliage. Than the velvet bean few plants require for full maturity a longer growing season. Planted say, April 1st, it does not harden its pods and seeds sufficiently for threshing until December or January.

The best market for buying the planting beans is in north Florida or south Georgia. North of this latitude the plant, while making abundant forage of vine and green beans, does not wholly mature the seed.

The beans are round, dark mottled and hard, and as large as the end of your little finger; the pods are the size of your thumb. The pods are as tough as leather, which makes shelling by machinery quite difficult. They are black and feel like velvet, hence the name. They grow in big bunches over the vine. I have seen these green bunches weigh as much as two pounds. Imagine a forage plant, three feet high, running in all directions for fifteen to twenty feet, and producing, too, besides vine, a peck or more of highly edible bean pods. The North has nothing to compare with it; nor has the North any natural cattle food to compare with this mixture of rich beans and vine.

Owing to the rank growth, the vines are mown for hay with greatest difficulty. The hay, too, turns black in color. The true value of the plant is to be found in grazing. Hogs, cows and horses are turned into the bean fields after frost in November, and there they graze in a snowless climate, fattening at a great rate, for three or four months, at which time the soil is plowed and turned over.

The plant is known as the greatest of all the leguminous plants, storing through its roots more nitrogen in the soil than any other known plant. In south Georgia there are vast areas of sandy loam land, once yellow pine forests, now a wilderness of fat pine stumps practically immortal, so filled are they with turpentine. The stump-turpentine producers are clearing these fields of stumps, free of cost to the owners. Dynamite is used to blow up the stumps, and the pieces are put into retorts and the turpentine distilled over. These lands are then planted for three years to velvet beans with corn, cattle are grazed and the soil is turned under. At the end of this period so marvelously is the land enriched this soil will raise one bale of cotton per acre.

Velvet beans, unlike cowpeas, do not carry the bacteria of plant wilt, thus making it ever a safe proposition for soil enriching for planting in peach orchards, orange groves, and in cotton fields. The

seed cost is less than cowpeas, being only about one dollar (one peck) per acre. On this account the sugar cane growers of Louisiana, for soil improvement, largely use these in place of cowpeas.

A new variety of this bean, "The Yokohama," is now being propagated. It matures in September and can be grown far north. By planting these two beans, the farmer can secure for his cattle six months of fall and winter grazing. "The Yokohama" has larger pods and carries five white beans as large as Lima beans, to the pod. The vine is eight or nine feet long. In some places the velvet bean is revolutionizing Southern agriculture. Small towns in Florida and south Georgia, where hogs and beeves were never grown for market, are now shipping cattle by the carload, fed and fattened in this cheapest way through grazing in fall and winter in velvet bean fields. To all cattle growers the velvet bean is an attractive proposition and needs to be looked into. It is well to remember, too, that this legume grows in the poorest soils and requires for cultivation only one plowing.

EMIL C. BUTZ.

The E. C. Butz Grain Co. of Chicago, Ill., announced its entrance into the grain commission business under the direction of Emil C. Butz on September 2.

Mr. Butz is a native of Chicago, having been



EMIL C. BUTZ.

born on the north side of the city in 1867. After an education in the Chicago public schools, finished at an Eastern university, he engaged in the grain business at Chicago in 1890 with H. Mueller & Co. Here he learned the barley business thoroughly and in 1897 he left this firm to go with the old barley house of E. Seckel & Co., where he remained for four years. In 1899 he started in business with Harry Ray as Butz & Ray. This business was absorbed by Rosenbaum Brothers in 1900, and Mr. Butz had charge of the barley department of Rosenbaum Brothers up to the formation of the present firm of which he is the head.

Mr. Butz is an expert on barley. He has made annual barley crop inspection trips for the past twenty years. He is well known in Western grain circles as well as in central territory, and has many friends who will wish him success in his new business.

It is officially announced at Calcutta that the British India government forecast of the Indian jute crop indicates that the crop will amount to slightly under 10,000,000 bales. This compares with over 8,150,000 bales 12 months ago. The crop estimated is the largest since 1907, but it is anticipated that the surplus will amount to no more than 400,000 bales, as the consumption of jute during the year is expected to be on a substantially larger scale.

[For the "American Elevator and Grain Trade."]

HAY TRADE IN THE OLD DAYS.

ONE OF THE ORIGINAL BALERS OF HAY AND HIS BALES—
SOME OLD TRICKS OF THE TRADE, ETC.

BY DANIEL M'ALISTER.

The hay and the grain trades I discover to be so closely allied ordinarily that the two are classed as one. I propose, therefore, to give your readers a few little reminiscences in the line of hay and the hay trade, as a simple diversion.

When I started in business for myself, now more than fifty years ago, I had never seen a bale of hay; nor was there any hay sold in the city of Columbus, O., excepting "loose hay" by the farmers to consumers, in such quantities as consumers might require or be able to stow away. My little place of business was on the same street with the public market, but far enough away to give me room to show my stuff without molesting others. I soon discovered that my customers required small quantities of hay as well as grain also, and that they would take small quantities of it along with them each day on starting out to work to feed at noon.

Thinking, therefore, that I might add some pennies to my daily profit, and not being afraid to do a little work, I tied up a few bundles every morning when taking out my horse, and placed them on the pavement at my door. My income was soon added to by a dollar every day, or more. My trade demanded, too, that I supply them larger and better bales, and that it be sent home to them along with corn and other kinds of feed. I then made up "a baler" of my own, a box, four feet in length, two feet in breadth and three feet deep, with a door in front hinged at the bottom, strongly braced and fastened substantially at the top with automatic hooks. The cord with which the hay was tied I cut in pieces twelve feet long and then fastened the ends of three such pieces to the box, back at the wall, then placed them in the box and down across the door in front. To hold the hay in shape, I placed two plasterers' lath within the box across the strings and two the same way at the top. With a good, heavy boy to tramp the hay, I could place one hundred pounds thus in this way into each bale and make the price to suit myself. I had no opposition, at least for a while, and was getting on quite well. I had to hire some others though to do the work. I had too much to do; my trade was growing fast. I looked about to find a place where I could get more stock already baled. I found a man who had a baler, something similar but taller and filled from above, and the hay was beaten down with a trip hammer weight and then fastened with a ratchet at the foot.

This device enabled me to ship hay in car lots at a time, as I did for quite a while before the "Deidrick," or perpetual, press came into general use.

Here, too, is another little matter I think I might as well tell about. Some of your readers may be interested in it, and it will serve to show that "honesty is the best of policy," anyhow.

I was market master at the time referred to, and was under obligation to guard the people of Columbus from fraud in weights and measures, as far as I might see or be able to know. One morning, therefore, after finishing my public duties (about 10 o'clock), I was standing in front of my store talking to my "help" when, looking across the street, just in front of me, I saw a man drive up, stop his wagon, get back onto the hayrack and throw off his heavy "binding pole," then start again and drive away. I thought I saw dishonesty in the move and followed him to be assured that I was right.

He got the wagon weighed without a word about the binding pole (a hundred and fifty pounds or so, at \$35 a ton, the price of hay just at the time), and I placed him under arrest. He had sold the hay to John G. Deshler and was to be paid for it at the Buckeye House, where our Board of Trade building now stands. When we got there, thinking it to be my duty, I presented the case to Mr. Desh-

ler. He took out \$1 only, the man himself denying nothing. When we got outside and were walking across the street to where his wagon was, he asked me what I thought his fine would be. I told him that the mayor would settle that; that my business was to take him before the mayor and tell what had been done. He leaned a little closer towards me then and separating a \$5 bill from others that he had, said: "Here, you take that and go and settle it—I want to start for home." "Oh, no," said I, "I can't do that. It may not cost you so much, but you will have to go with me to the mayor's office." The mayor fined him \$1 and the costs. Then the man wanted me to go with him and have a drink but I declined. "Well, then," said he, "I'll go now and get my binding-pole and start for home." When he drove up to get it though he found an old man with a "saw-buck" and a saw, the pole cut up and piled upon a wheelbarrow ready for the kitchen stove. Dishonesty had found its just reward.

Another little case I must relate, a reminiscence of the hay trade of long ago. In 1865, I think it was, I had progressed in business, had resigned the market mastership, and had removed to a larger place, put in a pair of street scales for myself and was making money. The public hay market was located within a block of my front door and of my scales—a something profitable for me to know, encourage and cultivate (being worth to me more than \$100 a month). Some of the "old maids" in the neighborhood wanted it removed and sought to have me call for the police. I replied that, "I do not connect well with the city prison and you'd better send down word or go yourself."

There were fourteen farmers on the stand just then and each one looked to me to shield him in his rights. "I'll do my best," said I, "but I must go to dinner now." On my quick return I found the hay was there but fourteen men had been arrested. I sent to get them out of prison. "Will my word stand," said I, "for \$140 to guarantee the appearance of these men in answer to the charge?" On being told it would, I said, "Then let them come down with me."

When they filed into my office they looked to me like an army, and when I questioned them as to where they lived and learned that they must answer first thing in the morning, I felt quite sure that I was "stuck," for half of them lived out in Licking County, fifteen miles away. I had a contract with the United States barracks and barn room of my own. I bought six loads of those who lived the farthest out and all then waited till the morning to go home.

All were on hand, but not one was fined. They had a right, the judge said, to be where they were until an officer should order them away, a thing no officer had done. Those men became my warmest friends. I sometimes hear about the case even today, although it happened more than forty years ago.

The hay crop of the present year, I'm told, is good, and so it seems, for all the fields and foliage, too, are beautiful, but farming somehow seems to be less cared for than it used to be long years ago. My old friend, Henry Obetz, told me once some forty years ago, that his farm was netting him above all cost of living three thousand dollars every year, and he gave much attention, too, to clover hay and clover seed. Another friend, John Brown of Jackson township, had a field one year of ninety acres, the finest field of clover hay I ever saw in all my life, red with the blossoms and a-hum with the buzz of bees. I paid him \$1,700 for his one year's crop off that field. Another friend, Phil. Wareham, who had rented a little farm adjoining his own during an unproductive year, told me his rented farm would not pay out; that there were some acres of clover hay on it, but that it was so short he didn't think it was worth cutting. I said: "Cut it down and thrash it for seed. Sometimes there is more seed in that short stuff than a person would think." He did as I had told him and I paid him afterwards \$200 for his crop of seed from that one field.

Why it is that boys give up the farm, with all its stores of wealth and happiness, to rush into the

towns and stand in property near some electric light, I, for one, am at a loss to understand. "Back to the farm. Back to the farm, my boys! The wealth is in the land. Go there and dig it out!"

HARRY F. DENIG.

The appointment of Harry F. Denig to be traffic manager and superintendent of the Pittsburgh Grain and Hay Exchange has already been noted in these columns. The appointment is a good one and was made after the directors had carefully "looked over the bunch" of available men for the place. Mr. Denig's experience covers some years with the Panhandle (P., C., C. & St. L.) and P. & L. E. Railways, followed by service in the traffic department of the Chamber of Commerce of Pittsburgh; so that he is familiar with the work in all its details and ramifications.

The new shibboleth of the greater Pittsburgh is "Pittsburgh Promotes Progress." With this spirit the Grain and Hay Exchange also is inspired, and it will be its aim in the future to co-operate with the carriers and the grain and hay interests of the



HARRY F. DENIG.

country for the extension and advancement of trade and commerce in these great staples and indispensable commodities, the demand for which moving through Pittsburgh is continually increasing.

CARRIER'S LIABILITY.

A carrier's duty is not done unless he transports the goods and tenders them to the consignee with reasonable promptness. If there is an unreasonable delay the carrier is liable for such damages as the owner of the goods may have sustained as a result of it, the goods cannot be abandoned to the carrier because of late delivery, and the consignee loses no right or remedy by accepting them. It is his duty to accept the goods whenever they may be tendered and to make the best use or sale of them he can make; then the carrier may be held for any deficiency as compared with what the goods would have been worth if they had been properly delivered. If the goods were bought for use and not for resale, damages may be recovered for the loss arising from an inability to use the goods or for the expense of supplying others to take their place at the time when delivery should have been made. Incidental losses arising out of the delay may also be recovered, with interest on the whole from the time the goods should have been delivered to the time of payment of the damages.—Journal of Commerce.

Oliver Michaels, who has been manager of the Farmers' Elevator at Lavinia, Iowa, for several years, will manage the new Farmers' Elevator at Rockwell City, Iowa.

[For the "American Elevator and Grain Trade."] **TRYING TO PREVENT SMUT IN WHEAT.**
WHAT THE PHILADELPHIA COMMERCIAL EXCHANGE IS DOING IN THIS DIRECTION IN THE EAST.

BY E. H. ROSENBERGER.

The Philadelphia Commercial Exchange has taken up the crop improvement question in a tangible way and is enlisting the aid of the newspapers of Pennsylvania, New Jersey, Maryland and Delaware with good success. The first subject dealt with is that of the prevention of smut in wheat, which has caused an enormous loss to wheat growers in the Middle States.

The question of grain brokers and traders taking an interest in the advancement of crop improvements has been a live issue with the members of the Philadelphia Commercial Exchange ever since the organization of the Council of Grain Exchanges. William M. Richardson, the chairman of the grain committee of the Commercial Exchange, has been an enthusiast on this subject from the start. He has been supported by a number of the members, although the Exchange itself has withdrawn from the Council.

The question of doing work locally along those lines met with favor at once, and in the latter part of August an article on the question of the presence of grain smut was prepared and sent to all the papers within the local Philadelphia territory. In doing so the cross-roads village weekly papers were not forgotten; in fact, on these the committee relies for the best results. It is pointed out that the little rural weekly, with its four, five or nine hundred or more subscribers is read by the farmers of the locality and its contents re-read, digested and discussed among the farmers, and that information disseminated in this manner reaches directly the very men who most likely are responsible for the presence of grain smut in wheat and who will be most likely to take heed of the admonitions sent out and brought to their attention through the channels indicated.

In dealing with this subject the committee prepared for publication in the country newspapers an article calling attention first to the enormous loss sustained from this cause, and, secondly, to the ease with which the same can be prevented. In doing this the article cites the scientific authorities and shows how farmers may obtain full information on the subject by investing a postage stamp and writing a letter. The committee at the same time places its services at the bidding of any wheat growers who may call on them in person or by letter, and makes a special point to get this information to the farmer in time for the 1912 planting of winter wheat.

The committee conclude their statement by saying that they have solicited the aid of the agricultural departments of the states of Pennsylvania, New Jersey, Maryland and Delaware in this important work, and have been encouraged by some of the officials to believe that they will gladly co-operate, as possibly some farmers may prefer to seek advice regarding prevention of smut from their state bureaus, agricultural colleges or experiment stations rather than to rely on this information. Secretary of Agriculture Critchfield of Pennsylvania writes that his department has recommended officially only the formaldehyde treatment, and refers those interested to the director of the Pennsylvania Agricultural Experiment Station, at State College, Pa. Dr. Mel. T. Cook, state plant pathologist, New Brunswick, New Jersey, writes that he has nothing to recommend other than the well-known treatments with formalin or hot water. Prof. J. B. S. Norton, state pathologist, at College Park, Maryland, advises the committee that his department will do what it can to disseminate information regarding grain smut. Dr. Duvel and Mr. Edward C. Johnson, of the Bureau of Plant Industry of the Agricultural Department of the U. S. Government, strongly approve of the committee's undertaking; and as everyone interested excepting the farmer has shown a sympathetic interest, "the committee makes this endeavor to

place the facts before him in time to be of service before seeding the new crop, with a recommendation that some of the authorities named be asked for explicit instructions how to proceed, or, if preferred, the request may be made of the Grain Committee, Commercial Exchange, Philadelphia."

BADENOCH ELEVATOR BURNED.

The elevator of the J. J. Badenoch Company at 2002 W. Seventeenth St., Chicago, was burned on the morning of August 16. The loss is covered by insurance.

The fire was discovered by John Gale, watchman, and had then apparently been burning for some time; for by the time the alarm had been given and the fireman arrived, the entire building was a mass of flame, while the watchman himself was forced to jump from the second story window to

ARBITRATION OF COMMERCIAL CASES. POPULARITY OF THE ARBITRATION PROPOSITION EVIDENCE OF DISSATISFACTION WITH THE COURTS.

BY WILLIAM B. ELLISON,
Of the N. Y. Bar.

The recent provision made by the New York Chamber of Commerce for a committee on arbitration, by whom business disputes and differences may be adjusted, has apparently met with quite general approval by the great commercial interests of the community.

The popularity of the proposition evidences some dissatisfaction with our courts. It is generally claimed that a final determination of a business difference may be had from the committee on arbitration in much less time than a trial can be had at law. It is also contended that a proceeding

without exception rendered honorable and valuable services to the people.

Sometimes one hears considerable about the number of reversals ordered by our appellate courts, but when the question comes to a careful and fair analysis, there is found to be but little in the criticism referred to. The proportion of reversals to the whole number of cases tried is not large. The number of reversals, as compared with the cases appealed may be considerable, but that proves but little. One thing, however, it does prove, and that is that mistakes made at the trial—and mistakes have been, and always will be made in the haste of a trial—may be readily corrected on appeal and finally justice given to the party entitled thereto. The frequent reversals referred to further evidence the careful review made by our appellate courts and, upon the whole, is approbative of our judicial system.

There is, however, a growing feeling that the provisions relating to trial by jury require some considerable revision, and that seems particularly so in regard to business or commercial disputes. There was a time when our jurors were selected with much greater care and discrimination than at present. Then, no such large elements of our people were exempted from jury duty as now. Furthermore, our population was not as mixed in its elements and qualifications as at present. It was then much easier to get a jury of twelve men quite well equipped to try even a complicated business or commercial dispute. We have, however, by statute, exempted large numbers of our people who would be particularly well fitted for jury duty; and influences, political or otherwise, it is said, in effect, exempt many others. The result has not been beneficial to the system. In addition to the conditions just referred to, it is claimed that the comparatively recent increase in the compensation paid to jurors has led not an inconsiderable number of people in this city to seek jury duty, somewhat in the light of a vacation.

But whatever the cause may be, the fact remains that among business people there is a growing distrust of the jury system as it now stands, insofar, at least, as the same is applied to the trials of commercial disputes. And certain it is, that many of our great business institutions look hopefully to the plan of arbitration created by the Chamber of Commerce under which their differences may be submitted to arbitration.

If my own experience of over thirty years is of value, I may say that I cannot recall one case, in the trial of which I participated, that I would have hesitated to have dispensed with a jury. Personally, I believe that the ordinary commercial case is better tried before a judge without a jury than otherwise, but there will be found much difference of opinion on this subject. There is, however, a pretty general appreciation of the necessity of some change in the present jury system, as is evidenced by comments made by members of the bench and bar whose experience gives to their utterances great weight.

From expressions of opinion it is quite clear that, with one or two exceptions, the judicial mind clings to the perpetuation of the trial by jury, in some one form or another, of commercial or business disputes. I am constrained to believe, however, that in this respect the bench does not echo the sentiments of the great business interests of the community. One hears constantly expressions of dissatisfaction at the results of jury trials in commercial cases; and there has grown up among business people a willingness to settle their disputes out of court on almost any terms, rather than have them submitted to a jury, under the present system of selection. This is not as it ought to be, and evidences a popular distrust in commercial circles, whether well or ill founded, that seriously affects the general confidence in our administration of justice.

Mr. Justice Greenbaum, in the expression of his views on this subject, drew attention to the large number of cases in which equitable relief was asked and involving, as he says, "commercial interests



TWO VIEWS OF THE RUINS OF THE BADENOCH ELEVATOR.

escape. Owing to scarcity of water several dwellings on the opposite side of the street were burned or damaged. Within thirty minutes after the alarm the elevator was in ruins.

The owners are J. J. Badenoch and his sons. Mr. Badenoch was formerly an alderman and for a brief period was chief of police of Chicago.

Baltimore reported the first sample of new spring wheat arrived on August 19. The wheat was of the White Jacket variety, and J. M. Wharton of the Grafton Roller Mill Co. said the quality was the finest raised in 20 years.

On August 19 Commissioner Cottrell of the Rock Island published warning of a coming "scourge of chinch bugs" in Kansas. He said that in his opinion "it will take widespread measures to avert the threatened calamity. Nothing less than to abandon wheat growing for a time in that part of the state where corn is also grown extensively. He urges that farmers who have prepared ground for wheat sowing this fall sow alfalfa instead."

under arbitration is much less expensive than under litigation. And beyond all this there seems to be a feeling that the committee on arbitration is infinitely better fitted for the decision of commercial questions than is either a judge or a jury.

There is not much genuine criticism of our judges by intelligent people. Those who know them best fully appreciate the burdens and responsibilities that are placed upon them. It is generally accepted, by those who are in a position to know, that our judges work hard and do their best to fairly and equitably dispose of the business that comes before them. It is rare indeed—as rare, at least, as in any other country on earth—that we hear a charge made against the integrity of a member of our bench. It may be that the judiciary is chosen from the ranks of our political parties, and it may well be that many of the nominations or appointments to these high places are the rewards for political fidelity or political favor, yet, time and experience have proven the fact to be that upon their election or appointment, our judges have almost

transcending in importance most of the contract cases tried with a jury." In almost all of the cases tried on the equity side of the court there are as many disputed questions of fact as occur on the law side, and yet there is little or no complaint over the non-submission of these disputed questions to a jury. The law provides that the court may, in its discretion, submit any issue of fact to a jury for trial, but that remedy is very rarely asked for. There seems to be complete satisfaction with the system under which questions of fact are submitted to the court alone, in all of the mass of



EGLY-DOAN ELEVATOR AT FORT WAYNE, IND.

litigation that is tried at the special terms for the trials of equity cases. It is difficult, indeed, to see why the same reasoning does not apply to the ordinary commercial litigation. The general impression also seems to be that much speedier trials may be had before the court without a jury, than with one.

Some reference has also been made to the desirability of giving the courts a greater power to send out cases for trial before referees. This might have merit were the referees paid by the state or by the county and provision made for the conduct of their business during substantially similar hours to those prevailing among the courts. The referee system, as it exists today, is subject to the criticism that the expenses become intolerable and the delays are oftentimes denials of justice. There is not much to recommend an extension of it, and it now has many abuses in the minds of not a few.

Our judges are elected by the people, or they are appointed by executives to whom the people voluntarily give that power. The judiciary, as a result, is directly or indirectly chosen by the people, and presumably chosen because of their fitness for the duties that they will be called upon to perform. As has been before stated, in the selection of our judges, we have been, with rare exceptions, very fortunate. We are prepared to submit our differences to them with full confidence in their fairness and in their ability to decide the questions presented to them. May the same be said generally of our jurors? There is a deep-seated and growing feeling among merchants, and others interested in commerce, that it may not.

There is, no doubt, much to be said for the retention of the jury system on the criminal side of our courts. Perhaps in the assessment of damages arising out of torts, there, likewise, may be much to be said in its favor. But, so far as the ordinary commercial dispute or difference is concerned, there are many who believe that the jury system has outlived its usefulness.

On August 23 corn sold at Chicago the highest in ten years and only three times in forty-one years has the price in Chicago been above that day's top figures, 84@84½c. In July, 1902, it sold at 88c, when John Gates was trying to run a deal, and lost out. On May 31, 1892, it sold at \$1 under manipulation, and then broke to 50c the same day, and in September, 1874, it sold at 86c. The prices named

were made without any manipulation, the oversold condition of the market and the congestion resulting from country shippers being unable to make their deliveries, because farmers have been too busy with other work to shell and deliver corn. In 1908 the price was up to 82c in May and September. Cash corn has only sold above 80c seven times in forty-one years, and even sample grade sold at 80c August 23. It was the most sensational situation the corn trade has ever known. No one in the trade had ever seen similar conditions at that time of year; in fact, it is difficult to find when discounts of December and May were so great at any time, and the situation without the market being manipulated. That the situation was badly strained was shown by the break of 3c as soon as cash buyers withdrew.—Chas. D. Michaels in Inter Ocean.

MODERN ELEVATOR AT FORT WAYNE.

A new and entirely modern cleaning and storage elevator was completed this spring by the Burrell Engineering & Construction Co. for the Egly-Doan Elevator Co. of Fort Wayne, Ind. It has a capacity of 50,000 bushels; is of cribbed construction, covered with Sykes iron siding; and is located on the Grand Rapids & Indiana and Pennsylvania Railroads, with two switches to the house. It is able to handle 30,000 bushels a day.

The elevator is 36x42 feet on the ground and 108 feet high, with a warehouse 36x60 feet in size, two stories high. The basement extends beneath both elevator and warehouse. The foundation is of reinforced concrete and the basement floor is faced with cement.

There are in the elevator eleven large hopper bins and in the warehouse four small bins for storing cracked corn products from the cracked corn grader. In the basement, extending from one of the dumps to the boat, is a B. S. Constant Chain Feeder and over the driveway is a dust room. The working floor is equipped with a Monitor Wheat and Oats Separator, a Monitor Oats Grader, a Monitor Cracked Corn Grader, a Monitor Seed Cleaner, Western Sheller and Monarch Feed Mill.

The elevating and conveying equipment consists of three main legs with 14x7, 16x7, and 18x7 cups running over 16-inch head pulleys, and two mill legs with smaller buckets. There are two receiving

The elevator is provided with both man lift and freight elevator.

The Egly-Doan Elevator Co. was incorporated early this year with capital stock of \$50,000. C. G. Egly is one of the well-known grain men of northern Indiana, having started in business at Berne sixteen years ago. W. M. Doan has been for years connected with the Beatty-Doan Co. of Ossian, Ind. The picture of the office shows on the steps of the building: Mr. Doan, Mr. Egly, Mr. Stahl, and the cashier and office assistant, Misses Katherine Kriegel and Anna Koehlinger, as the persons photographed.

LEVER BILL PASSED.

The House on August 23 passed the Lever bill, providing for an appropriation in aid of county agricultural demonstration through the state agricultural colleges. The important sections of the bill provide as follows:

That in order to aid in diffusing among the people of the United States useful and practical information on subjects relating to agriculture and home economics and to encourage the application of the same, there may be established, under the direction of the college or colleges in each state now receiving, or which may hereafter receive, the benefits of the act of Congress, approved July 2, 1862, entitled, "An act donating public lands to the several States and Territories which may provide colleges for the benefit of agriculture and the mechanic arts," and of acts supplementary thereto, a department to be known and designated as an agricultural extension department:

Provided, that in any state in which two or more such colleges have been or hereafter may be established the appropriations hereinafter made to such state shall be administered by such college or colleges as the legislature of such state may direct.

Section 2. That it shall be the object and duty of said agricultural extension departments to give instruction and practical demonstrations in agriculture and home economics to persons not resident in said colleges in the several communities, as may be provided by the states accepting the provisions of this act, and to convey and impart to such persons information on said subjects through field demonstrations, publications, and otherwise.

The bill was laid over by the Senate, and will be taken up in connection with a somewhat similar measure known as the Page vocational educational bill, with the following official title:

To provide for co-operation with the states in promoting instruction in agriculture, the trades and industries, and home economics in secondary schools; in preparing teachers for these vocational subjects in state colleges of agriculture and the mechanic arts in state normal schools and in other training schools for teachers supported and controlled by the public;



OWNERS AND EMPLOYEES OF THE EGLY-DOAN ELEVATOR CO., FORT WAYNE, IND.

sinks with Burrell Overhead Wagon Dump in the lean-to and two loading spouts with bifurcating spreaders are so arranged that two cars can be loaded at the same time on either of the two tracks running through the track shed.

A Fairbanks Hopper Scale in the cupola has a weighing capacity of 1,600 bushels. Beneath the scale are telescoping distributing spouts and on the bin floor are a cracked corn separator, a Knickerbocker Cyclone Dust Collector and a rolling screen separator.

The corn products are spouted through the side of the elevator to the four bins in the upper part of the warehouse where it is bagged for shipment.

in maintaining extension departments of state colleges of agriculture and the mechanic arts; in maintaining branches of state experiment stations; and to appropriate money and regulate its expenditure.

This bill was first introduced in the Senate last year. It was reported by Mr. Page in February of this year, and on July 24 was agreed to in the committee of the whole, after having been somewhat amended, but failed finally, just before adjournment, because of the pressure of appropriation bills. The fate of the Page bill is dependent on that of the Lever bill, and Senator Page will be urged to accept the latter bill as a substitute for his own, in which case the Lever bill will probably go on the statute book early next winter.

THE NORFOLK CONVENTION.

TENTATIVE PROGRAM OF THE NORFOLK CONVENTION OF THE GRAIN DEALERS' NATIONAL ASSOCIATION.

It begins to look as though the chief feature of the coming convention of the Grain Dealers' National Association at Norfolk, Va., October 1, 2 and 3 next, will be the discussion of the uniform grade question.

Because of the activity of United States Senator McCumber and other friends of Federal inspection, and their announced determination to continue the fight in the next and subsequent Congresses, the grain men have been forced to reopen the whole question of inspection and to devise some method of meeting the attacks of the enemies of the present system.

At the coming Norfolk convention there will be a display of grain of all the grades used in the different terminal markets in the country. E. H. Culver, president of the Chief Grain Inspectors' National Association, will be in charge of the exhibit. Mr. Culver has sent out invitations to all the exchange and state inspectors to come to the convention and bring with them a sample of grain of each of the



CAPT. W. R. MAYO,
Mayor of Norfolk.

grades in their market. The responses that have been received from this letter are gratifying.

It is expected that there will be fully five hundred samples which will be displayed in a room set apart for the purpose at the Monticello Hotel, the convention headquarters. This room is 90 feet square, giving ample space for the exhibit. The samples will be displayed in tin pans twelve inches long, eight inches wide and six inches deep.

All the Southern grain dealers are much interested in the exhibit and many will attend the convention for the purpose of seeing this display of grades. The exhibit will enable them to judge for themselves just what the different Northern and Western markets are doing toward securing uniformity in grading.

The attendance at the coming convention will, it is expected, exceed that at the Omaha meeting a year ago. As an illustration of the number of people who will go from the Central States it may be stated that at Frankford, Ind., alone, a party of twenty-two dealers will assemble. They will go to Cincinnati in a special Pullman car, and at the Queen City they will join the special train on the Norfolk & Western Railway, the official route to the convention city.

The Norfolk end of the program has been arranged for. After the convention has been called to order the invocation will be given by Rev. Sparks W. Melton, D. D., pastor of the Freemason Street Baptist Church. This will be followed by an address of welcome on behalf of the Norfolk Board of Trade by Harry K. Walcott, its president. W. R.

Mayo, mayor of Norfolk, will then welcome the grain men to the city, and William Hodges Mann, Governor of Virginia, will welcome the visitors to the Old Dominion.

One of the outside speakers arranged for is L. E. Johnson, president of the Norfolk & Western Railroad. Mr. Johnson will speak on "Railroad Building, Service and Revenues." This is expected to be an interesting talk because of the agitation in and out of Congress for Federal control of the railroads. The president of the N. & W. will discuss the subject from the standpoint of the railroad man.

Following is the program:

TUESDAY, OCTOBER FIRST—9:30 A. M.

Call to order by the President.
Invocation, by Sparks W. Melton, D. D., Pastor Freemason Street Baptist Church, Norfolk.



WM. HODGES MANN,
Governor of Virginia.



L. E. JOHNSON,
President N. & W. R. R. Co.

Address of Welcome on behalf of the Norfolk Board of Trade, by Harry K. Walcott, President.
Address of Welcome on behalf of the City of Norfolk, by his Honor the Mayor, W. R. Mayo.
Welcome to the Old Dominion, by his Excellency the Governor of Virginia, William Hodges Mann.
Response on behalf of the Grain Trade.
President's Annual Address, by E. M. Wayne, Delavan, Ill.
Secretary-Treasurer's Report, by John F. Courcier, Toledo.
Appointment of Committees.

AFTERNOON SESSION—TWO O'CLOCK.

Executive Committee, by J. W. McCord, Chairman, Columbus.
Committee on Finance, by John J. Stream, Chairman Chicago.
Committee on Membership, by Edward Beatty, Chairman, New York.
Committee on Transportation, by A. G. Tyng, Chairman, Peoria.
Committee on Bill of Lading, by Charles England, Chairman, Baltimore.
"Better Grain and More of It," by Hon. A. P. Sandles,

Secretary Ohio State Department of Agriculture, Columbus.

OCTOBER SECOND—MORNING SESSION.

Committee on Crop Reports, by B. A. Lockwood, Chairman, Des Moines.
Committee on Legislation, by A. E. Reynolds, Chairman, Crawfordsville, Ind.
Committee on Arbitration, by Adolph Gerstenberg, Chairman, Chicago.
Committee on Trade Rules, by F. O. Paddock, Chairman, Toledo.
"Railroad Building, Service and Revenues," by L. E. Johnson, President Norfolk & Western R. R., Roanoke, Va.

AFTERNOON SESSION.

Committee on Uniform Grades, by John M. Dennis, Chairman, Baltimore.
"Grain Standardization," by Dr. J. W. T. Duvel, Crop Technologist in Charge Grain Standardization, Washington.
"The Acidity Test," by Hon. E. J. Watson, Commissioner of Agriculture for the State of South Carolina, Columbia.
Uniform Grade Committee, by E. H. Culver, President National Association of Chief Inspectors, Toledo, Ohio.
Oyster roast.

THURSDAY, OCTOBER THIRD—MORNING SESSION.

Committee on Natural Shrinkage, by L. A. Morey, Chairman, New York.
Hay and Grain Joint Committee, by P. E. Goodrich, Chairman, Winchester, Ind.
Committee on Demurrage, by Geo. D. Montelius, Chairman, Piper City, Ill.
Committee on Telephone and Telegraph, by Harry W. Kress, Chairman, Piqua, Ohio.
Unfinished business. Election and installation of officers. New business. Adjournment.

AFTERNOON SESSION.

Subject to change by the convention itself, the morning session will be continued to conclude the business program. Immediately after adjournment all members



HARRY K. WALCOTT,
President Norfolk Board of Trade.

and visitors will leave the Monticello Hotel for a sail around the Harbor of Norfolk and to the Capes. Luncheon on the boat, with music and dancing.

OBEYING THE LAW.

More than 50 of the leading seeds houses of the country now advertise in their catalogues that they test their seeds for germination, says an Agricultural Department circular. Nine firms advise purchasers to send samples either to the seed testing laboratory of the United States Department of Agriculture or to a state experiment station to be tested. Seven firms state that they themselves follow this course in regard to the seeds they offer, and that the seeds are thereby officially guaranteed to be of the high grade represented. Six firms allow a stated time for making a test, advise purchasers to make such test on receipt of seeds, and request the return of seeds which do not satisfactorily meet the test. Five firms state that the seeds they are selling comply with state laws, and a number of firms give the percentage of purity and germination in compliance with state laws. These statements, says the circular, indicate that competition between seed dealers is becoming more and more a competition based on quality—a healthful tendency from the standpoint of both customers and honest dealers.

Canadian head-of-the-lake elevators during August were congested by feed (no grade) wheat, 2,506,000 bus. being in store there on August 1 without demand for it.

THE FREIGHT CAR PROBLEM.

The problem of relieving the congestion at terminals and of providing against the expected shortage of cars in the future, was discussed at a dinner at the La Salle Hotel on August 26, given by the Chicago Board of Trade to the members of the Federation of State Grain Associations, a few railroad men and representatives of the grain trade. After dinner had been served, Lee G. Metcalf of Illinois introduced the guest of the evening, W. A. Garrett, chairman of the Association of Western Railways, who on the basis of the lessening daily number of idle cars predicted a car famine by October. What is the remedy? In reply, Mr. Garrett, in part, said:

The presidents of eleven Chicago granger lines, recognizing the possibility of a serious car shortage, sent the following joint letter to the Illinois Railroad and Warehouse Commission on August 19:

"Because of the bumper grain crop in the West and Northwest, making possible a car shortage this fall, on behalf of all grain carrying lines this is to ask if sufficient grain inspectors and samplers cannot be employed to secure samples from all cars arriving in Chicago in time to have the cars inspected and reported on before 11 a. m. of each day. Such a program would save twenty-four hours' unnecessary delay to many hundreds of cars."

The failure to provide cars to the country shippers promptly creates a serious condition, especially when the freight cars that should be required for an additional trip are being unnecessarily delayed at the large terminals, either because of congestion, for which the railroads are partly responsible, or because of the failure to promptly unload the cars, for which the elevator interests may be responsible.

Under date of August 24, the following letter was sent to J. C. F. Merrill, secretary of the Board of Trade of the city of Chicago, by the chairman of the Association of Western Railways:

"The bumper grain crop this fall suggests the possibility of a car shortage, and with view of conserving the grain carrying equipment on behalf of all member lines of this Association the Chicago Board of Trade is asked to co-operate in the following manner:

"(A) Prompt inspection and sampling cars and the reduction of duplicate sampling to a minimum.

"(B) The immediate ordering of cars on the day of sampling and sale.

"(C) Secure bills of lading so they will be available for surrender at time cars arrive and are sold.

"(D) An official communication to the chairman of this Association at 12 o'clock M., each day, showing what if any elevator should be embargoed, so that the chairman may communicate immediately with all in-bound carriers."

I make an especial appeal to each one of you to get behind the above mentioned programs so that the railroads may be aided in the handling of the business this winter. That the railroads contemplate handling the car situation during the coming fall in a vigorous manner is emphasized by the fact that the presidents of the railroads are taking a hand in urging an early sampling and inspection of grain, hoping that on many cars one day's detention may be saved. In Chicago, a car sampled and inspected before 11 a. m. of the first day of the month has until 7 a. m. the third day of the month before demurrage is charged, while a car sampled and inspected the afternoon of the first day has a free day on the second and a free day on the third and the demurrage begins at 7 a. m. of the fourth day. With the demand for equipment, no carrier desires to earn demurrage on freight cars in Chicago or any other terminal, because the demurrage charge does not pay the interest upon the ground value and track maintenance in Chicago; but the railroads are anxious to get the cars unloaded so that they may get an out-bound load to the country and another in-bound load to the city.

Many shippers do not seem to be impressed with the fact that cars are provided for transportation and not for storage, but even with the above free time allowed at Chicago for the release of the equipment, the Chicago grain records for the months of September, October and November, 1911, recorded the fact that 5.45 per cent of all cars inspected during that period were delayed beyond the free time and earned demurrage.

The country shippers can help the car situation and the general railroad situation by working along these lines:

(a) Anticipate need for empty cars with early and reliable advice to the agent.

(b) By not using spikes to secure the grain doors to the car posts. The Chicago elevator men have claimed that the spiking of the grain doors causes serious delay in releasing the temporary doors so that the grain may flow. While possibly the delay to a single car might not be great, if the major portion of the grain doors were secured in this way it might make it impossible for the elevators to unload as many cars as they would if the grain doors were secured with 8- and 12-penny nails. Besides, the spiking of the doors to the door posts causes the destruction of the doors when releasing the grain, and many times results in damage to the car door posts, making a repair track treatment necessary, which of course causes an unnecessary delay to equipment.

(c) By not loading cars with leak defects or that are not in a fit condition to carry grain safely to market.

(d) By not loading grain into cars with oil soaked floors or into cars containing foreign matter that would damage the quality of grain.

(e) By loading cars as soon as possible after being set.

(f) By loading the cars to their full stenciled capacity, but not beyond the maximum quantity allowed.

(g) By advising the local agent as soon as cars are loaded, giving shipping directions immediately.

(h) By notifying local agent when the grain loaded is perishable; that is, in heating condition or so full of moisture as to likely get out of condition during transit.

While not bearing directly upon car shortage, yet the time of the railroad employees can be given more exclusively to the car supply and car handling if the grain shippers would co-operate to the following extent:

1. By using more care and more reliable methods in determining the weights of grain loaded into cars, eliminating the causes for claims, the resultant contention and many times ill feeling. This can be done by using better and more modern weighing equipment and installing this equipment upon suitable foundations and in accessible places by having scales tested frequently by competent scale inspectors; and by using the same care to see that all grain weighed for a car is loaded into that car as the shipper expects the terminal weighmaster to use in protecting and weighing the car at destination.

2. By making and keeping a detailed and accurate record of the amount of grain he loads into each car.

3. By attaching cards to the grain doors, giving each draft and the dates of weighing, the total quantity loaded and style of scale used in determining the weights. Many of you understand that there is a law in the state of Minnesota which compels shippers to attach weight cards to grain doors, and in the case of failure to attach such weight cards destination weights will govern.

4. By promptly forwarding bills of lading to the points of destination, in order that cars will not be detained awaiting such bills of lading.

5. By reporting over-runs in weights as promptly as reporting shortages. Shippers should not file claims for shortages when the shortages are offset by over-runs. Briefly, why not investigate conditions at the loading and unloading points to determine whether or not a shortage really exists before making claim on the railroad for shortage, because the railroads should not be expected to recognize weights determined in such a manner and on scales that the shipper would not be willing to accept as a basis of settlement for his grain if weighed in the same manner and on like scales at destination. It is a matter of record that many country shippers file claims for shortages based on a cut-off or the emptying of a country elevator, charging the railroads with the difference between their buying weights and the unloading weights determined at destination; in other words, the railroad is often requested to pay the shipper for the shrinkage in handling the grain through the elevator.

It is not claimed that the railroads are without fault, but because of the possibility of a car shortage with the bumper crops to move, you may depend upon the railroad officials and their thousands of employees using extraordinary efforts during the next six months to properly and promptly look after the grain dealers' interests, and if the grain men during this time will co-operate along the above mentioned lines, we will indeed have made progress, and both the railroads and the grain shippers will secure a financial return therefor.

Mr. Garrett's remarks were carefully listened to as a presentation of the railroads' side of the situation; then the other side was heard. And there is another side most assuredly. In reply to Mr. Garrett's criticism that the number of cars of barley re-sampled and detained is disproportionately large, W. N. Eckhardt explained that the nature of the grain and the standards of quality required by maltsters rendered this inevitable; yet after all the whole number of cars of barley handled is a mere bagatelle. The congestion at Chicago is due to other things, such as the condition of the yards, which makes inspection both difficult and dangerous and compels many reinspections of cars because of overloading that is a result of the unwisely large minimums fixed by the railroads; to the difficulty and delays in getting samples into the city because railroads will not stop either local or through passenger trains to take on samples. Another and very serious cause of congestions and delays in Chicago during the last crop year was the abnormal condition resulting in heavy accumulations of grain in this market, a condition not likely to be repeated. Nevertheless the elevator capacity in Chicago in the past twenty years has declined twenty million bushels and only 25 per cent of the present capacity is owned by the railroads; yet the grain receipts of the market are greater than ever. Is it not the railroad's duty to provide elevator facilities for unloading the grain they bring to the market?

Mr. Wells of Iowa criticised the method of ordering and supplying cars. There is no system to it. Dealers don't order, they "holler" for cars; and when in the course of time they are supplied the brakeman may put them at the end of a switch where no one can get at them. When the terminal is congested the cars are again handled without system—

the last car in is the first out of a switch track and the first car in may stand there for a month before it is moved.

C. B. Riley criticised the carload minimums as too large to be conducive to rapid inspection and to encourage overloading. Another cause of complaint is that the roads compel a shipper on ordering cars to specify size, kind and destination. The last condition is the worst, for while a shipper in ordering may have Toledo in mind, yet when the car, delayed in delivery, arrives, that market may be off, but he can't ship elsewhere because of this rule.

S. W. Strong said the distribution of cars is unequal. By complaining as secretary he could get cars for shippers that the shippers could not get for themselves, and he'd be thanked, too, for "butting in."

Weighmaster Foss said the railways are "up against" the fact of incompetent help.

Edward Andrew said 60 to 70 per cent of the receivers in Chicago employ car tracers because they cannot depend on the railroads to give prompt service; it is sometimes very difficult even to get expense bills promptly.

Sec'y Merrill reminded Mr. Garrett that in the old days when 16,000 to 20,000 pounds was a carload, there were few delays in handling grain. But now that cars hold from 60,000 to 80,000 pounds and are loaded to the roofs, inspection is impossible and delays in unloading are inevitable. Besides the railroads have not adapted themselves to new conditions. In 1894 the corn crop was 1,200 million bushels. In 1910, 3,000 million bushels. The crop has been more than doubled, but there has been no enlargement of terminals or terminal facilities to take care of the increase. Yet Chicago handles 5½ times as much grain as any other market. Hence all these delays; and in order to get any kind of service the receivers have to do much at their own expense in the way of pushing car movement, following cars about the yards to see that they are not lost or forgotten. He cited a case of a car going east delayed 21 days for transfer. Here is the real delay—in the transfer yards, where men and machines are overworked; and overwork is always bad work. It has come, too, to that pass that some shippers will not let cars go to team tracks. There ought to be facilities furnished by the railroads in the way of elevators with carload bins for this trade alone; and if that were provided miles of trackage would be thrown open to other traffic.

John McCreery gave the country man's experience. His recollection immediately covered a typical case—an 80,000-pound car that stood on a siding warehousing for two days a radiator that should have been unloaded into the depot, while the grain man "hollered"; and other cases where merchandise remained similarly unloaded. "The brakemen operate the roads."

Tying up cars at junction points until a train is accumulated reduces the cost of hauling, probably, but it contributes to the daily average of 24-mile movement by freight cars.

Many more cases were cited to show that where the railroads "fall down" is in the practical work of moving cars and handling freight—in the operating department, in the workmen's and not the official part of the service.

CONSERVATION CONGRESS.

The National Conservation Congress will be held in Indianapolis on October 1 to 4. On the list of chairmen and the subjects that will be considered are the following: Forests, Prof. H. S. Graves, Washington, D. C.; Lands, Prof. L. H. Bailey, Ithaca, N. Y.; Waters, Dr. W. J. McGee, Washington, D. C.; Minerals, Dr. Joseph A. Holmes, Washington, D. C.; Vital Resources, Dr. W. A. Evans, Chicago; Food, Dr. H. W. Wiley, Washington, D. C.; Homes, Mrs. Matthew T. Scott, Washington, D. C.; Child Life, Hon. Ben. B. Lindsey, Denver, Col.; Education, Dr. C. E. Bessey, Lincoln, Neb.; Civics, Ralph Easley, New York City; Wild Life Protection, Dr. W. T. Hornaday, New York City; National Parks, Dr. W. J. McGee, Washington, D. C.

MONARCH BALL-BEARING DIRECT-CONNECTED MOTOR-DRIVEN ATTRITION MILL.

The Monarch Attrition Mill, which was placed on the market many years ago by Sprout, Waldron & Co. of Muncy, Pa., has, from the start, been recognized as one of the leading machines in its class; and conforming to its well known policy of making improvements wherever possible, the company has from time to time made such changes as seemed desirable, until the Monarch Attrition Mill was developed to a point where improvement was no longer possible save in one particular, viz., the use of ball bearings and direct-connected motor drive.

The introduction of the ball bearings and direct electric motor drives, however, was something of a departure and the company was not satisfied to put out a ball-bearing, direct-belt-driven and direct-motor-driven attrition mill until thoroughly satisfied of its mechanical practicability. The company had well-defined ideas of how ball-bearing belt-driven and direct-motor-driven attrition mills should be built, and went ahead and built them. They worked like a charm. The idea was highly successful, but the company was not willing to offer the mill for sale generally until it had been put in the hands of millers who would give it actual service for at least a year.

This was done, and for more than a year a number of these mills have been in actual use. The manufacturers know what they have done and are in a position to guarantee the Monarch Ball-Bearing

60 cycle, for any kind of grinding. Both the single head and double head ball-bearing attrition mills are equipped in this manner, for corn cracking as well as any kind of grinding desired. Machines for other voltages, phases, cycles and speeds can be made to order.

Among the advantages claimed for this mill, in addition to saving power or increasing capacity, is its absolute rigidity, making it impossible for it to get out of tram. The bearing cases and pedestals are machined to fit into each other and are accurate to the thousandth of an inch. No matter how long the mill is run or how hard it is driven, there can be no looseness or "play" to these parts. The pedestals and base of the mill are extra solid and the shaft cannot possibly get out of line.

The bearings are claimed to be absolutely dust proof. The lubricant used is grease, not oil, and when the mill is shipped enough grease is placed in each of the four bearings to last from one to three months. Thereafter it is necessary to add grease only occasionally, through compression grease cups. This does away with the possibility of introducing dust or grit into the bearings through frequent oiling and means a big saving in time and cost of lubricants.

The bearings are extremely sensitive. The mill starts up easily without perceptible friction on the bearings and the same conditions apply while the mill is running to its full capacity. A peculiar fact about the bearings of the Monarch Ball Bearing Attrition Mill is that the friction on these bearings at rest under a given load is not greater than when

particulars regarding their latest production for feed grinding and have a large amount of valuable information to impart to interested parties.

[For the "American Elevator and Grain Trade."] MORE ABOUT THE TESTING OF SCALES.

A REJOINDER TO SCALE INSPECTOR JOHNSON'S EXPOSITION OF HIS ANNUAL REPORT STATEMENT OF METHODS.

BY A. G. ZEIBEL,
Scale Supervisor C. G. W. R. R. Co.

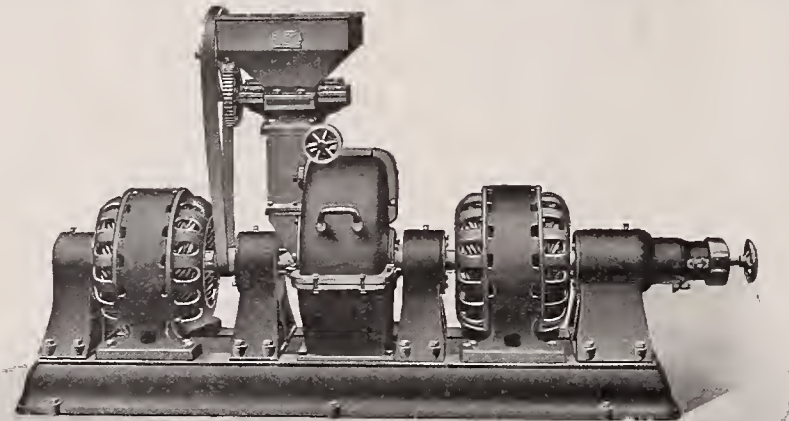
It was with much interest that I read Mr. Clay Johnson's reply to my criticism of the paper he read before the Illinois Grain Dealers' Association at its recent annual meeting. His answers have not, however, made the matter any more clear to me, with the possible exception of his assurance that he, contrary to his first report, does not believe one 50-pound test weight sufficient to test a wagon scale.

That portion of his reply, where Mr. Johnson says that the grain man need not concern himself or worry about the technical makeup of the scale, has my hearty approval in so far as it relates to merely "theoretical" "technical" conditions not serious enough to effect the practical everyday working accuracy of a scale; and in this connection I believe that these "theoretical" "technical" conditions should be discussed only in scientific journals, instead of being used to "clutter" the pages of the grain journals. Nor should they be used in a manner that tends to add confusion to an already confused subject. I believe we should confine ourselves to the practical side of the scale proposition and leave the "theoretical" and "technical" to those whose business it is to study that angle of the question.

Again referring to the track scale Mr. Johnson mentioned in his original paper, it would seem to me that his answer in your last issue is insufficient and made up of generalities. What I particularly wanted to know was what was wrong with that scale to cause it to show an error of 35 pounds "heavy" on one ton of weights.

In view of the fact that the worn condition of a scale usually causes it to show "slow," or weighing "light," when empty (and this is true when the scale is tested empty as well as when it is tested with a load), consequently it is an unusual condition when a track scale test shows the scale as weighing 35 pounds "heavy" to the first 2,000 pounds placed upon it. As is known to all practical scale men, binding of the scale will cause it to show "slow," or weighing "light." A certain amount of the weight that is placed on the scale is consumed by the bind, and only the balance shows on the beam; hence, any binding of the ordinary kind would tend to make the scale "slow," or weighing "light." The binds that tend to make the scale weigh "heavy" are found less frequently; and this is necessarily so, for the reason that they are caused by connections being out of plumb, or levers out of level. The case where the adding of the load entirely obliterates the effect of such a bind is indeed unusual and might be of interest to all concerned. Even a scale inspector of just ordinary intelligence knows, without writing to the fountain head of scaleology, that the cause for such an *unusually* large error in the "light" test of a track scale should be discovered without much effort, and if the cause of such an error when found would be intelligently reported through the grain papers, it would, no doubt, be of material assistance to the grain interests, as well as to those lowly scale men who are not fortunate enough to stand in the reflected light of the great man from the East.

I wish also to take exceptions to Mr. Johnson's statement to the effect that he does not know and cannot find out the approximate error in the scales he tests, since he carries but 1,000 pounds of known weight (test weights) and that he is positive only of the variation on this 1,000 pounds. This seems to me to be an admission that even after he has made a test of a scale, all he knows is that the scale will weigh 1,000 pounds correctly or incorrectly. If we take for granted that the fluctuations he so freely mentions occur in every scale from "light weight" to "load" and also in between, and that these variations are due to the deflection of one or more of the various levers, how can we possibly



MONARCH BALL-BEARING, DIRECT-CONNECTED, MOTOR-DRIVEN ATTRITION MILL.

Direct-Motor-Driven Attrition Mill not only as a mechanically perfect machine, but as a power saver and a capacity producer.

From the accompanying illustration it will be observed that these machines are supplied with two specially constructed "CCL" motors equipped with dummy-end bells. The rotors of the motors are pressed onto the mill-shaft at the company's factory by specially constructed machines made for this purpose only. On one end will be noticed the special adjustment mechanism for regulating the distance that the grinding plates are to be apart. Therefore, it is necessary to use rotors of special construction. The width of iron in the rotar must be greater than the width of iron in the primary, so that the rotar can be moved in or out and still the iron will be overlapped by the iron in the secondary, so that the magnetic pull will be exerted.

The use of this type of mill results in the elimination of belts and no loss of power from friction. The regulation is as perfect as modern mechanical methods will permit. With each machine are furnished the latest type of auto starters, which are so equipped that when a certain amount of power is applied same will kick off, so that should any large or undesired material get in between the plates sufficient to wedge between the heads and thus start one motor in the opposite direction or require too much current it would cut off the current and stop the machine instantly. This has absolutely and positively been demonstrated in every way to the satisfaction of the manufacturers and many different experts.

These motors are made for alternating current any voltage, 110, 220, 440 or 550, two or three phase and

running under the same load; so that the resistance of the power required to start is no greater than when running. The percentage of friction on the bearings remains about the same with an increased or decreased variation of the capacity of the mill.

All parts of the mill are made with such extreme care and accuracy that anything about it can be renewed without expensive machine work to make the new part fit. While the mill is so strongly built that about the only parts that ever require renewing are the seal rings and grinding plates, this interchangeability of parts insures against delays due to accidental breakage for which the mill is not responsible. The life of the ball bearings is estimated by the manufacturers at from five to ten years.

In incorporating ball bearings and direct-connected motor drive none of the well known features of the Monarch Attrition Mill has been eliminated. It is still equipped with tapered split seal rings, which are made adjustable to take up wear. The arms on the runner-head are protected from wear by plates screwed to their face. These plates are renewed from time to time, with the result that the runner-heads do not wear out and the full capacity of the mill is maintained at all times.

The Monarch grinding plates are made of a charcoal iron mixture which for toughness, hard-wearing, rapid-grinding and constant good-cutting qualities has never been excelled. The adjustable end contains a safety spring which prevents the heads from drifting together when the mill is running empty, a relief spring which allows the heads to separate when any foreign substances enter the mill, and a quick release operated by a hand lever.

Sprout, Waldron & Co. are prepared to send full

know that the scale is correct unless we use test weights to the full amount of its capacity? And if this is the only proper method by which we can be assured of accuracy (I mean the practical kind, not "theoretical" "technical" accuracy), why then should we delude ourselves into believing that the 1,000 pounds of test weights are of any value whatsoever? And why, I say again, should we go to all the trouble of shipping weights throughout the country and sending a scale inspector with the weights in a useless effort to find out whether or not the "test weights" weigh one thousand pounds? Most assuredly we should know more than just this.

Evidently some of the grain dealers' associations' scale inspectors DO figure the total amount of error in the scales they test. For instance, E. C. Brown, scale inspector for the Ohio Grain Dealers' Association, has some way of figuring the total error of the scales he tests; for he says in his report, published in your issue of August 15, that he found an average error on wagon, track and hopper scales of 1 per cent, which equals an error of ten pounds on each 1,000 pounds weighed. As the average net load weighed on wagon scales is about 4,000 pounds, the total net error necessary to bear out Mr. Brown's figures would be 40 pounds. Now, from what Mr. Clay Johnson has said in regard to multiplication, we are justified in assuming that he would expect the whole error of 40 pounds to show on his 1,000 pounds of test weights.

There also is at least one association scale inspector who believes that scale errors multiply in many instances. I refer to C. C. Hoffman, scale inspector for the Indiana Grain Dealers' Association, who in his annual report, which was printed in your issue of July 15, says that he "adjusted" 161 of the 314 scales tested. No doubt Mr. Hoffman must have had sufficient reason to believe that the 161 scales were out of seal before he made the adjustment.

Referring to that part of Mr. Johnson's letter that refers to the value of the load when making a test, and wherein he says that he in loading a hopper with 30,000 pounds of grain does not know what the grain actually weighs. In reply to this I wish to say that the reason a scale inspector loads a hopper scale to its capacity is to find out whether or not the amount of deflection in the levers of the scale exceeds that point where practical accuracy is destroyed. If the hopper scale shows correct when tested light with a ton or two of weights, and again shows correct when tested loaded under its maximum capacity, Mr. Johnson, or any one else, is justified in believing that the scale is correct; providing always that a sufficient number of test weights are used so that the minimum amount of error on this known weight, which can be detected in the action of the beam, is smaller than the amount of any error that might affect (for practical purposes) the correctness of the weight arrived at.

I very much disagree with Mr. Johnson on what he says about the rolling of a load from end of a scale to the other. Mr. Johnson evidently has not grasped the value of this protectionary measure, or safeguard. I said absolutely nothing about this method replacing the regulation test. It is very easy to see that by taking the average gross load weighed upon a wagon scale, which would probably be about 5,000 pounds, and rolling it from one end of the platform to the other, if there is any variation between the two ends of the scale the amount of error shown on the beam will be greater on this load of 5,000 pounds than would the amount shown by moving one end of the platform to the other. The case when the heavier load would not make the proportionate greater showing is indeed the exception. Another important thing to remember in this connection is that this test is available almost at any time, while the test with weights is made only periodically. As I stated in my previous communication, this trial end test does not prove the accuracy of any scale; it may, however, show the need for a scale man and his paraphernalia, and in this way it is a precautionary safeguard. Right here I want to add that even where the periodical tests are far more frequent than they are at country shipping points, these trial end tests are considered a necessary precaution and are endorsed and required as such by a number of practical men who

are at the head of successful railroad and chamber of commerce weighing organizations. In view of the foregoing, I am at a loss to understand what really is the motive for Mr. Johnson's opposition to this precautionary measure.

I hope that the discussion started by my criticism of Mr. Johnson's paper will be of sufficient benefit to your readers to pay you for the trouble of printing these articles, and I thank you for the space you have so kindly given me.

ASSOCIATION OFFICERS.

A meeting was held at Chicago on August 26 and 27 of the Association of Officers of Associations, which was presided over by President Metcalf of the Illinois Association, with Secretary Wells of the Western Association as secretary. The attendance of association officials was smaller than was hoped for; but the meeting developed a line of information and suggestion of the greatest value.

The proceedings were quite informal, the object being to obtain information. The perennial subject of weights was the first on the docket; and one phase of the problem was, by request of the Federation, made the subject of a paper by F. C. Maegly, assistant general freight agent, A., T. & S. Fé Ry., as follows:

As I understand it, the object of the Federation of Grain Dealers' Associations is to promote and establish a higher standard of equity and integrity in commercial practice and to bring about uniformity in the methods of transacting business. This being true, the suggestions which I will offer are in keeping with the objects of the Federation.

Business men as a rule are predisposed to be honest and fair in the conduct of their business transactions. Beyond the features of honesty and fairness, accuracy and efficiency are required. Accuracy demands effort and involves expense. Inaccuracy begets doubt and distrust.

There is widespread doubt among shippers and receivers, buyers and sellers, of bulk grain respecting weights. Why not? The cause is obvious when we review the findings of scale experts employed by the several grain shipping associations. There are exceptions where the shipper and the receiver have satisfied themselves respecting the security and reliability of their customer's facilities and methods.

It is not the function of the carrier to serve as public weighmaster and establish the basis of weight for trading purposes. Scales are maintained by the carriers for the purpose of weighing freight to determine a basis for freight charges. Where the cars' marked tares are kept reasonably accurate and current, the weighing of carload freight in transit and use of the car's marked tare afford justifiable accuracy for the purpose of collecting carrier's freight charges. Trade exactions, on the other hand, are such that greater accuracy in weights is required as a basis of settlement for value of grain as between buyer and seller.

In each of your individual trade organizations I believe there are standing committees whose function it is to induce more competent, careful and accurate weighing methods at the time and place of loading and unloading. In this connection I note with much interest the movement started by Mr. Reily, secretary of the Indiana Grain Dealers' Association, urging the adoption of a uniform official shipper's weight certificate. Recent issues of trade papers have contained outlines of the suggested certificate form. By enlarging somewhat upon the information provided by the proposed certificate, I believe it will fulfill a longfelt want and result in reducing variations in weights to a minimum.

With a view of duly impressing the person who executes such a certificate and the carrier's agent waybiling the weight so certified, it has been suggested that excerpt from Section 10 of the Interstate Commerce Law, relating to the falsification of weights, be printed on the back of each certificate. I sincerely hope that before this meeting adjourns the Federation will lend its official sanction to the adoption of a uniform official certificate of weight for use by shippers and receivers of grain.

In view of the fact that the grain dealers' associations represented here have committees for the purpose of promoting accuracy in weighing methods, you will no doubt be interested in a conference held in Chicago not many weeks ago between the weighmasters of the leading terminal grain markets, called for the purpose of discussing ways and means of improving the grain weighing facilities generally. This conference grew out of the disclosures of the grain shrinkage investigation, conducted jointly by carriers and grain shippers. The data gathered indicated that many of the variations in weights were caused by inadequate weighing and loading facilities at interior shipping and receiving points. This weighmasters' conference referred to resulted in the formulation and approval of a set of regulations for the installation, care and use of weighing machines. The regulations were deemed reasonable, and if I may be allowed I will read them. I would urge the official approval of the same by the Federation of Grain Dealers' Associations, to-wit:

SUGGESTIONS FOR REGULATIONS GOVERNING SCALE INSTALLATION AND GRAIN WEIGHING TO BE ADOPTED FOR THE GUIDANCE OF GRAIN SHIPPERS AND ELEVATOR OPERATORS.

1. **SCALES**—(a) The bearings of all scales shall be of steel or inlaid with steel and properly hardened.

(b) The knife edges shall be straight and sharp their entire bearing width, and shall be hardened. (c) All levers must be strong enough so that the amount of the deflection under full load will not affect the accuracy of the scale.

2. **SCALE CONSTRUCTION**—(a) When wood is used in the construction of the framework of a scale, no spliced or "made-up" timbers shall be used, but each timber shall be of one piece. (b) In framing the timbers of a scale the blueprint or plan of construction as furnished by the manufacturer shall be closely followed. (c) The workmanship on the entire framework shall be first class. (d) All levers and their connections shall be level and plumb.

3. **SCALE FOUNDATIONS**—(a) Foundation for track and wagon scales shall be constructed of concrete, stone or hard brick. (b) The same need for rigid foundations exists in the setting of hopper scales.

4. **TRACK SCALES** shall be equipped with dead rails or dead platforms, or the scales shall be so located that engines will not pass on or over them.

5. The practice of placing the beams of hopper scales on the lower floors of elevators with the scales proper located in the cupolas and resting on the bin cribbings should be discouraged.

6. There shall be plenty of clear space on all four sides of the hoppers of all scales.

7. All scale pits shall be kept clean and shall be thoroughly drained.

8. **SCALE TESTING**—(a) Scales shall be regularly tested by an experienced scale inspector at least twice a year. (b) Wagon and small hopper scales shall be tested with not less than 1,000 lbs. of test weights. (c) Hopper scales of 300 to 500 bushels capacity shall be tested with not less than 2,000 lbs. of test weights. (d) Hopper scales of carload capacity shall be tested with at least 4,000 lbs. of test weights. (e) All track scales shall be tested with at least 4,000 lbs. of test weights. (f) All scales shall be tested empty and loaded to their working capacity. (g) The grain shippers at each shipping station should collectively and individually purchase a set of test weights in order to insure frequent testing of each scale. This will enable them to place weights on their scales themselves from time to time between the regular tests. Where shippers own test weights they must be carefully handled at all times and protected against the weather and kept in a clean, dry place. A tightly covered box for their storage should be kept in each grain office where it is warm and dry. The warmth will prevent condensation of the moisture on the weights during extreme changes in temperature. These test weights can be proven and resealed from time to time by the scale inspector who makes the periodical scale tests.

9. A record of each test shall be kept which shall include: (a) Date of the test. (b) The amount of error found, if any. (c) The repairs made or recommended, if any. (d) Date when the repairs recommended are completed. (e) The name of the scale inspector making the test and making any repairs, also the name of the scale manufacturer, association, form or individual with whom the scale inspector is associated.

10. **THE HANGER WEIGHTS** of all scales shall be tested at the time each periodical test is made, and if worn light they shall be resealed. (a) Weighers shall go over the scale thoroughly each morning to be certain that the platform (or hopper, as the case may be) and the mechanism of the scale are free and do not bind. (b) Weighers shall keep their scales in perfect balance at all times. (c) Weighers shall make daily examinations of the spouts leading from hopper scales to car and any other equipment used in handling the grain between scale and car, to be certain that they are grain tight. (d) Recording beams (not automatic) are a most valuable aid in preventing errors. (e) Where scales are not provided with checking devices a record shall be made of the different denominations of the hanger weights used in weighing each draught. (f) Where a non-registering compound beam is used it is imperative that the weighers check and recheck their readings of the weight on the beam before disturbing the poise, and that their record of first entry shall show separately the reading of the main beam and its auxiliary beam.

12. Where wagon or track scales are used a record of the weather conditions during the weighing shall be kept in order to determine the possibilities of the weights being affected thereby.

In the discussion on the merits of the weight certificate proposed by Sec'y Riley of Indiana (printed on page 96, August number of this paper), Mr. Maegly said that a shipper who weighs a carload by wagon loads without reweighing through the elevator should state that fact on his certificate. Another point to bear in mind is that when automatic scales are used, at least three tests per carload should be made to check up the changes constantly going on in the specific gravity of the grain being weighed. Manufacturers of this type of scales advise this; and on the certificate in question, when it is used, the agent should make note of the fact that such tests have been made. A third notation should be made, if it is the fact, to-wit, that the grain being damp is likely to go out of condition in transit. This fact should be made very clear, as a protection to both shipper and carrier. If there is a hazard of this nature the fact should be made known at once, so that the movement may be expedited. The fact that all these things are noted on the weight, or loading, certificate in question does not change the liability of the carrier in any way, but it does put

him on notice of the conditions subsisting. The value of the proposed loading statement made by the shipper on getting the B/L is that it would be a check on careless weighing and check any tendency to make false statements as to actual weights.

In Ohio, J. W. McCord said, the old "more or less" count and way billing so encouraged the making of claims that the railroads of the state refused payment of many unless allowed to examine the claimant's books. That, of course, was objected to; and a statement of weight, or count, was then required by the railroads; and losses have materially decreased since.

A. E. Reynolds of Indiana said the solution of the weight problem is the use of automatic scales. His company operates a great many, constructed on the simple balance principle, and has found them most satisfactory. These scales should be located on the first, or working, floor, not at the top of the elevator, and the grain should drop into a boot to be used for that purpose only and be elevated at once in its own leg and run into the car. The railway agent can attend to such weighing if desired. Mr. Reynolds said his company uses scales to weigh out 2,500 bushels per hour—the larger the scale, the greater the accuracy. He deprecated the proposition that the railroads should install track scales and weigh grain at country points—let a locomotive run over such a scale once and it would be useless ever after.

The Riley weight certificate, Mr. Reynolds thought, is subject to the same blunders now attributed to the weighing, and, moreover, is not permissible under the Pomerene bill, that will probably be made law by Congress next winter, by virtue of which railroads will not be allowed to issue bills for "shipper's load and count"—they must weigh or count or accept loader's statement as true.

Sec'y Wells of Iowa said examination had disclosed the fact that Iowa grain men's scales were in disreputable condition; and there were no end to the claims filed. Now there are better scales out there and fewer claims are filed. Iowa grain men generally endorse the loading certificate, believing it fair alike to shipper and railroad. They do not approve of the railroad track scale at country points.

Sec'y McCreery of the Illinois Farmers' Grain Dealers' Association, who believes in track scales at country points, did not have much faith in the certificate. He cited a case where grain weighed on a scale "ok"-ed by Mr. Foss's man showed a shortage at outturn; yet the carrier refused to pay for the loss.

Sec'y Strong of Illinois thought the shipper's word as good evidence as the certificate.

Mr. Meagly thought the certificate would put out of business the man who adds 1 per cent to his actual weight and then guarantees outturn, because it would make him certify to the truth or confess himself lying about his weights.

W. N. Eckhardt of Chicago said he thought such a certificate would be valuable. Many cars reach receivers billed "estimated weight." It would be an excellent guide for receivers, but of course it would not be conclusive except as to grain forwarded to small markets that accept shippers' weights. Country elevator weights are very poor and shippers must accept Chicago weights. Such a certificate would be helpful in pressing claims for shortage, but hardly practicable as a thing to insist upon. As to overbilling, he thought it very rarely done in the country. Country shippers, with rare exceptions, are honest and fair—they tell the truth; but anything that tends to promote accuracy is desirable; and as a statement in support of a claim the certificate should convince the railroad claim agent of its fairness, at least, and its truth *prima facie*, as it would be made before a claim were filed and not after a shortage had developed.

INTEREST ON ADVANCES.

Just why there should be any question of the propriety of an interest charge on advances to shippers does not appear, but many shippers do not seem to understand why it is charged; and the members of the Federation "wanted to know." Sec'y Merrill of the Board of Trade therefore explained the obvious. Some delays inevitably occur in the handling of grain at destination; and as

sales on track are completed only when grade and weight are known, settlements cannot be made until both these are reported officially. In the past receivers were allowed under the rules to charge interest for fifteen days, but more recently the rule has been changed, limiting interest to seven business days after sale. If at that time the weight cannot be ascertained, the buyer must remit 80 per cent of the estimated value and make complete settlement as soon as the weight is known. Of the thousands of cars handled annually few are very greatly delayed; and this arrangement very equitably adjusts the burden. [It is absolutely untrue, as claimed at the Peoria meeting of the Illinois Association, that delays are encouraged by receivers in order to make an interest charge.]

APROPOS REINSPECTION.

Another item on the docket was reinspection and "Kettles." Mr. McQueery complained of "double inspection," and certainly did not give evidence of understanding the function of the official sampler, whom he characterized as an "inspector"—the "Board of Trade inspector." Messrs. Merrill and Eckhardt then explained Mr. Kettles' business, which in a few words is simply that he is the buyer's agent. The latter, having bought a car of grain, has until 11 o'clock of the day following to take his own sample thereof; call for reinspection, if he so desires; and reject if he is dissatisfied with the quality of the grain. Mr. Kettles takes this sample and reports thereon to the buyer, who thereafter must act through State Inspector Cowen, the latter alone having the legal power to grade the grain. All this should be plain enough to shippers, who can hardly expect their grain to pass to buyers without the latter having some protection against blunders over which they would have no control or against which they would have no remedy in case of mistake.

CROP IMPROVEMENT.

On August 27 Bert Ball of the Crop Improvement Committee spoke upon the work of the Committee and his desire to interest the Associations, whose members are of all tradesmen most interested in a succession of good crops. It appeared from Mr. Ball's remarks that T. P. Riddle of the Northwestern Ohio and C. B. Riley of the Indiana Associations were most active in this work. The Ohio Association is also taking part in it. The time for action is now at hand in the winter wheat states; and Mr. Ball's suggestion was to hold conferences at the grain elevators to find out who are the farmers that need seed wheat in Ohio, Indiana and Michigan, where the crop was a failure, and supply it through the elevators. This would be a convenience to the farmers and also insure uniformity of the grain grown in each neighborhood.

Mr. McCord said Ohio is hard at work on crop improvement, which is being advanced in four ways, to wit, through agricultural teaching in the schools, the experiment station and the State Board of Agriculture and by college extension work. Mr. Riddle started his work at the psychological moment and is working in connection with the Institute management, who have over 2,100 boys now growing pedigreed grain. The bankers also have taken hold and are offering prizes for show grain.

In Iowa the bankers are at work, but the grain men are rather indifferent at present. The movement headed by Prof. Holden will nevertheless keep Iowa alive.

NATURAL SHRINKAGE.

The "natural shrinkage" question, on which a report was made in these columns some months ago as the outcome of the February conference of railway men, shippers, association officers, etc., is still in the hands of the general managers awaiting their action. The Illinois Association has, however, come to an arrangement with Illinois roads on the shrinkage and claims questions that has worked admirably. The average claim filed by the Association is about \$7; the minimum, \$4; and the amount collected by the claim department has been about \$20,000. The employment of a scale expert has helped. At first the secretary had to "drum up" business for him; now he is behind his work.

CAR INSPECTION.

Weighmaster Foss when asked about car inspection in the outer yards before they reach the city

said it could be done, but would add to the weighing charges, as the present income from weighing would not warrant the additional expense. St. Louis, Louisville and New York are making such an inspection of cars, but Chicago has thirty-two roads each with from two to four yards calling for watchers and sealers. Continuing he said:

To begin with, I want to say that a service of this character at Chicago would be a much larger proposition than such a service at St. Louis, where the Weighing Department is now operating along similar lines, although the cost to shippers would be about the same.

There are about 32 lines of railroads entering Chicago, some of which are carrying grain into the city all of the time and others a portion of the time. Each of these railroads maintains one or more yards, which the Weighing Department, under the proposed plan, would have to keep under surveillance to a greater or less extent, either by stationing men permanently in the yards or by a system of itinerant sealers, inspectors and watchers.

These yards, to a great extent, are located in remote parts of the Chicago switching district, which includes territory in Hammond and Indiana Harbor, Ind.; South Chicago, Ill.; Hawthorne, Galewood, Blue Island, West Chicago and a score of other places, some of them being 30 to 40 miles distant.

The duties of the Weighing Department's force of men under the proposed plan would be:

(a) To meet inbound cars and examine them as to and to record their physical condition.

(b) To have effective repairs made to cars showing evidence of leakage.

(c) To make a record of all seals.

(d) To seal any cars that arrive unsealed.

(e) To see that the doors of all cars are promptly closed and promptly sealed after each grain inspection and sampling.

(f) To make a suitable record of the breaking of each seal and the reasons for breaking each seal, including a record of each resealing. All resealing to be done with seals consecutively numbered to prevent duplications.

(g) To see that all cars containing bulk grain are forwarded from these outlying yards to their respective unloading points under proper seal protection and in good condition.

(h) To see that cars receive adequate police protection.

(i) To send a full and complete report of their findings and doings concerning each car to the Weighing Department's office for the benefit of the shippers and consignees interested.

As I have explained before, we now have deputies stationed at each unloading point in the Chicago switching district to examine all cars and to make a full and complete record of the condition of each car at such unloading points and to make a record of all seals. Thus you will see that this supervision would enable us to supply a full and complete record for each and every car of bulk grain from the time it arrived in the outlying railroad yards until at last it is delivered to the unloading point. Whether or not the good resulting from such a full and complete record by a disinterested bureau would justify the expense is a question for the shippers to decide.

For my part, if I undertake the service I must not be hampered by lack of means with which to carry on the work successfully; for I will either do it thoroughly or I will not undertake it at all. I am well persuaded that if the work is not done well it would be a waste of money to inaugurate the supervision.

This brings us to the cost of the service. My recent investigation of the matter bears out my former conclusion that we could undertake the work on the basis of 25 cents per car. After we have handled the program for six months I could tell better whether this charge was inadequate or too high. I believe, however, that this charge would not any more than enable us to break even.

In deciding the practicability of the plan and the cost, you grain men must take into consideration the need of all shippers co-operating. It is obvious that it would cost as much to maintain this supervision for a part of the inbound cars as it would all of the inbound cars; in fact, it would be impossible to discriminate in carrying on the work; hence, all cars would receive like benefit of the service, regardless of whether or not the shipper is bearing his portion of the expense. In other words, if a large percentage of the shippers refuse to bear their portion of the burden, the plan certainly cannot be put through successfully. As far as the Weighing Department of the Chicago Board of Trade is concerned, it is ever ready to carry out the desires of the grain trade in so far as its revenues will permit.

The proposition to recommend that the Chicago Board of Trade inaugurate this form of car inspection was approved by the association officials present on basis of terms named by Mr. Foss.

The Federation then adjourned the open meeting and later at an executive session adopted the following for promulgation:

ORGANIZATION.

Resolved, That this organization be continued during the next year under the name of "Association of Officers of the Grain Dealers' Associations," and that its membership shall be composed of the presidents and secretaries of the several state and co-operative grain dealers' associations, and the president and secretary of the Grain Dealers' National Association.

DELAYED REINSPECTION.

Whereas, It is the custom and rule in certain terminal markets to give the buyer the privilege of calling for reinspection when the car is placed at the elevator for unloading and having reported sale

or the application of same on the contract to the shipper on basis of the original inspection, thus giving him a basis upon which to make purchases from farmers that is misleading and results in loss, not only on the car in question, but also on all grain purchased on that basis; therefore

Resolved, That the Association of Officers of Grain Dealers' Associations, assembled at Chicago this 27th day of August, 1912, do hereby express their disapproval of such delayed reinspection, and that the secretaries of the grain dealers associations be instructed to obtain definite information regarding the custom relating to such delayed reinspection at each of the different terminal markets, and that each secretary report the conditions found by him to the other secretaries in order that they may advise their membership by circular letter, and also report such findings at the next meeting of the Association for the general consideration and action by the officers of the associations, and

Resolved, That a copy of this resolution be placed in the hands of the secretaries of the board of trade or exchanges where delayed reinspection is allowed, with request that the matter be considered with the view of changing the custom and rules.

REINSPECTION AT CHICAGO.

Whereas, There seems to be a complex condition and system of reinspection of grain at Chicago, involving the drawing of samples by parties not under the jurisdiction of the Grain Inspection Department of the state of Illinois; and

Whereas, Such complex system is not fully understood or appreciated by the trade at large; therefore, be it

Resolved, That a committee composed of the secretaries of the grain dealers' associations, included in the Association of Officers of Grain Dealers' Associations, be appointed and directed to make a thorough investigation of the whole subject, and upon the conclusion of its investigations and deliberations, reports be made and submitted to the proper department of state and to the Chicago Board of Trade, together with recommendations for such changes as may be deemed desirable in the interest of the patrons of the Chicago market.

INTEREST CHARGES AGAINST DRAFTS.

Whereas, The consideration of the interest question as provided for in Item No. 1 of the Docket developed the ordinance of further investigation and consideration; therefore.

Resolved, That a committee composed of secretaries of the grain dealers' associations be appointed to pursue the investigation and the consideration of the whole subject, and that the subject remain on the docket pending such investigation and report.

UNIFORM SHIPPERS' WEIGHT CERTIFICATES.

Resolved, That we recommend the use of uniform certificates of weights by grain shippers in substances, as follows. [Here follows the form printed in the August number of this paper on page 96.]

SPLIT PEA DUTY.

In order to offset the effect of a bounty paid by the German government on split peas exported from that country Secretary MacVeagh on August 22 announced that he would exact a countervailing duty on that commodity; and Michigan pea growers will benefit by the order. This duty is about 22c per cwt. As Germany is now paying an export bounty on wheat and rye flours also, the same countervailing duty will be applied to those products also, if offered for import here. The countervailing duty on peas will be applied on all split peas from Germany no matter where grown.

Protests against the German bounty had been filed in the Treasury Department from Michigan and the Northwest, who complained that the German article is driving the home-grown peas out of the market in the Eastern states and invading the Central West also. The German bounty is a peculiarly vicious sort of fiscal policy, in view of its effects at home and abroad. It is based on the rebate principle, familiar enough in this country, which rebates 99 per cent of the duty paid on materials that are re-exported. The Germans, however, do not stop at 99 per cent of the actual duty paid; but, in order to sneak into their fiscal policy the universally discredited and discarded principle of export bounties, it pays on duty certificates actually more in rebate than the duty originally amounted to, so that it thus pays cash out of its own treasury to rob its own people of part of their breadstuffs—usually the very best of them, too, as only the highest patent flours and choicest grain are able to get the bounty.

Berlin advices two days after the Treasury order was announced said that, "The action of the United States is generally regarded here as merely another step in a little German-American tariff war which started with the paper pulp duties, and was followed by German action excluding the United States from the benefits of the Swedish and Japanese treaties under the most favored nation clause, but no decisive step is likely to be taken by the German government pending the American decision in re-

gard to Canadian pulp." Later, however, it was said that practically no importance was attached there to the question of the countervailing duties on wheat and rye flours and split peas because the value of the annual export of wheat meal from Germany to the United States amounts to only \$250 and that of peas to \$17,500, only a portion of this being accounted for by split peas. There are no exports of rye meal from Germany. Quite characteristically the Tages Zeitung declared the imposition of the compensatory duties "a shameless breach of treaty to which Germany must not submit, regardless of the amount involved."

DR. R. E. DOOLITTLE.

Although the office of chief of the Bureau of Chemistry has been vacant for some months since the resignation of Dr. Wiley, no one, of course, has labored under the idea that there was no one worthy or capable of standing in the distinguished Doctor's shoes. On the contrary, the delay in filling the vacuum may have been occasioned by a plethora of distinguished and capable chemists. At last, however, and perhaps in advance of the schedule, it is announced *sub rosa* that the honor will soon fall



DR. R. E. DOOLITTLE.

upon Dr. R. E. Doolittle, who since Dr. Wiley's retirement has been acting chief of the Bureau, and who "is recognized as a student of Dr. Wiley, having been under him for some time and having become thoroughly imbued with the Wiley policies."

Dr. Doolittle has been in the service of the Bureau for some years but has been a member of the Board for about a year only, or since the Wiley-Wilson-McCabe row in the Bureau. As chief *pro tem*, Dr. Doolittle is said to have "won the favor of Secretary Wilson and of the President by eliminating friction and exercising tact." To this fact his appointment is probably due, and the formal announcement of the promotion is expected to come shortly.

CONCERNING "TREASURY RELIEF."

Secretary MacVeagh in an interview a few days ago said that the treasury would extend relief to the money market this fall should relief be needed. He added that the "Government now had a comfortable balance." What is known as the "working balance in the treasury's offices," which represents free money in the treasury, from which deposits could be made with the banks, if need be, to relieve a money market stringency, stands now at \$88,815,000; a year ago it stood at \$84,805,262; in 1910, \$32,058,000, and in 1909, \$29,761,000.

Richmond, Va., reports the first arrival of new oats on August 6,—1,000 bus. from Texas.

NEW PLANT OF THE BARNARD & LEAS MFG. CO.

Work on the new plant of the Barnard & Leas Manufacturing Company at Moline, Ill., is progressing rapidly and the company hopes to occupy it and have the machinery in full operation by January 1, 1913.

No effort or expense has been spared to have this plant absolutely up to date in every particular. All the latest improvements in factory construction are embodied in the plans. All buildings are being built of reinforced concrete and steel and are absolutely fireproof. The lighting system is the best that can be devised and the latest ventilation plan is used. Every device for facilitating the manufacture of their products and insuring promptness of delivery is being installed.

The new plant occupies much more space than the old, owing to its greatly increased capacity. The machine shop has dimensions of 150x140 feet. It is one story in height, with saw tooth roof construction, which permits of the maximum of light. It is equipped with traveling cranes and every device for facilitating the work. All the machine tools are new and of the latest pattern. Nothing is left that was used in the old plant.

The large reinforced concrete wood mill and erecting shop occupies the ground formerly taken by the old plant and measures 150x220 feet; 60x150 feet of this is two stories in height, with provision made for a third later on. In fact, the entire plant is made with a view to future extensions. The remainder of this building is one story, with roof construction similar to the machine shop. Most of the shipping, all the erecting of machines and all the wood working machinery are located in this building. Everything in it is most modern and of a type demonstrated to be the best for the purpose.

All the machinery in the plant is driven by electricity from individual or group motors and provision is made for installing a generating plant if necessary. The heating is done by steam which is generated by a battery of boilers located in a central plant. Automatic sprinklers are also installed throughout the plant for fire protection.

When completed Barnard & Leas Manufacturing Company will have a plant second to none. It will enable them to handle their greatly increasing business in a manner most satisfactory to their customers and themselves.

AN OBJECT LESSON.

The value of the commercial grain exchanges in marketing the grain crops of the country was strikingly illustrated Tuesday, September 3, when fully 10,000,000 bushels of grain—mostly wheat, corn and oats—were handled at the primary markets. Chicago alone took close to 4,000,000 bushels. All of this grain was taken care of with a break of only 1 to 2 cents a bushel in prices, and on the day following part of the decline was recovered.

That the speculative markets were a distinct help in caring for this vast volume of grain is admitted by every one concerned. Without the commercial exchanges, indeed, and the opportunity offered by them to regulate prices through trades for future delivery, the offering of such a quantity of grain would have caused a little panic, and buyers might easily have been able to dictate prices and secure absolute bargains. That is exactly what occurs with other products not handled on the commercial exchanges, when a sudden and very great supply appears all at once upon the market, and when buyers can take their time about purchasing, if they choose.—N. Y. Evening Post.

The Canadian Grain Commission has been asked to reduce the number of grade of Western grain.

For the first time in four years considerable quantities of oats are being exported from Philadelphia. On September 5 there were twenty carloads in the elevator at Washington Avenue awaiting export.

What is said to have been the largest single delivery of grain on record on the Kansas City market was on September 3 by Simon-Shields Grain Co. of 750,000 bushels of wheat to Armour Grain Co.

[By Permission.]

IF I WERE A CLAIM AGENT.

THE EXPERIENCE OF A WEIGHMASTER APPLIED TO THE SOLUTION OF THE SHORT WEIGHT PROBLEM.

BY H. A. FOSS.*

My subject permits me to tell you what I probably would do—at least, what I think I would do—were I railroad claim agent. Any claim agents who may be present will then be at liberty to tell me some of the things they would or would not do, were they managing the Weighing Department of the Chicago Board of Trade.

First, let us suppose that you were a claim agent. What would you do with the thousands of shortage claims that would necessarily pass through your hands? Would you pay them regardless of the evidence? Perhaps you would; but I believe you wouldn't; i. e., you wouldn't if you were familiar with the character of the weighing, loading and unloading facilities that are in use everywhere. You wouldn't if you knew all about the conditions conducive to incorrect weights, that exist at so many loading and unloading points. You wouldn't if you were as familiar with shortages and shortage claims and their causes as I am. On the contrary, if you were a fair minded man, you would handle each claim absolutely on its merits. You would determine, as far as possible, the responsibility for each discrepancy. You would consider each possibility and each probability. You would take into consideration the reliability of the weights of the claimant and be guided accordingly. You would honor or decline each claim within a reasonable length of time. You would acquaint yourself with the many causes for variations in weights; and in this the handling of thousands of claims of all kinds would materially aid you. As for the railroad company you would represent, it would profit by your knowledge of the causes for so many shortage claims; for I am convinced you would see the value of and inaugurate a comprehensive campaign of education among shippers and receivers of grain, that should result in a surprisingly large reduction of shortage claims.

My observations, I believe, justify my conclusion that the solution of the "shortage-claim" problem, in a large measure, is in publicity and in education; and, moreover, I am well persuaded that the most effective weapon with which to fight this source of contention is within reach of every claim agent. Through his vast experience with claims and their causes, and by rubbing elbows with the shippers and receivers who file these claims, he necessarily gains a fund of information and knowledge directly bearing on the real causes for shortage claims; and if the light of this experience were focused with its full force in the right direction, the whole atmosphere of claims would be clarified. The result would be such an awakening among those who maintain antiquated grain weighing and grain handling machinery, and among those who still tolerate slovenly, slipshod methods of recording and verifying weights, and among those who practice the eleventh commandment—"Do others or they will do you"—that railroad officials and shippers would think the millennium had come.

If I were a claim agent, my aim would be to locate and to eliminate the causes for the thousands of otherwise unexplained shortages, even if I was compelled to visit each and every grain handling point along the line. I would circularize every grain loading station on my road. I would stir up so much interest in the subject that the shipper would be ashamed to enter a claim without first investigating its merits. Similarly, would I be ashamed to decline a claim until I had gone into the matter thoroughly. On the other hand, I suppose if I were a claim agent, galavanting up and down the line, correcting evils and unsatisfactory weighing conditions, I would have very little time left to adjust your claims. Probably it would be better if this "correcting work" was placed in the hands of some official who could specialize in this particular line and who would be authorized to keep in close touch

with the claim agent, the claims and the claimants.

Frequently I have received letters from shippers asking if it would be practicable for my department to send car condition reports at the time we issue the original weight certificates giving an account of any broken seals, or of any "repair patches" that we may find, regardless of whether or not there is any leakage apparent. The reasons given for wanting such car condition and seal reports with the original certificates of weight are that the writers do not want the delay consequent to an investigation by the weighing department; that they want matters handled in such a manner that all their bookkeepers will have to do in cases of differences in weights will be to file claims against the railroads.

It occurs to me that when a shipper finds a difference between the weight recorded by him and the weight recorded by the terminal weighmaster, it is his duty, before entering any claim against the railroad,—

First: To investigate and verify the weight of the grain at the point of origin.

Second: To have the weighing and unloading of the grain verified at destination.

Until after the shipper has done these, in my opinion, he is not justified in entering any claims against any railroad for shortage, for the reason that such procedure entails upon the carrier a performance which he himself should fulfill; and, what is of great importance until after the shipper has conducted such investigations, he can not know whether or not there exists any real shortage.

This brings to my mind a claim of shortage for 288 bushels which was paid to a shipper at Duluth. Sometime later, the Canadian elevator operator who unloaded the grain gleefully told me, in strict confidence, that he had found the 288 bushels of wheat in his elevator; but when he learned that someone else had paid for the shortage, he was willing to let well enough alone.

To illustrate further the value of careful investigation, I shall read from a letter received by me sometime ago, relative to differences in weights on two cars that were handled at Chicago elevators, as follows:

Dear Sir: I have just received from Blank & Co. your certificate of weight for two cars of corn, and one of the cars is short 6,000 pounds and the other 3,000 pounds. There is no use in asking you to investigate these shortages, for I know full well what your answer will be. I just want to say to you that I am tired of being robbed. Either the grain was stolen at the elevators where it was unloaded, or it was stolen in transit; for the cars were well coopered and grain-tight when they left here, as I coopered them myself. I shall file claim against the railroad company for my loss, and I want to notify you that some one is going to pay me for this steal.

Later it developed that two other cars which were loaded by this same shipper overran his loading weights some 9,350 pounds, thereby restoring our blasted reputation. Upon inquiry, I found that this shipper determined the weights of his cars by weighing the grain in wagons as it was bought from the farmers. It was then stored in different elevator bins and an itemized account kept of each bin. Later, he would ship the contents of a bin without re-weighing, using the original in-weight for his out-weight. This instance, and I could cite scores of them, clearly demonstrates that prompt and careful investigation at points of origin will often prevent much ill feeling and abusive letter writing.

Investigation, too, at terminal points by public weighmasters frequently explains away differences which otherwise might be charged to dishonesty or to the carrier. Only recently, one of the cars weighed on a railroad track scale by one of my weighmen fell short 5,000 pounds. Later, we investigated the matter and found that one of the main levers of the scale had been broken when the car was set on the scale platform. This broken lever caused the scale to register an incorrect weight, hence the shortage. Not knowing of the broken lever, however, we issued a clear certificate of weight for the car. It is obvious that had we not learned of the shortage and investigated the matter the railroad would have received a claim from the shipper which it would either have paid or, perhaps six months later, declined.

In view of these and scores of similar experiences, I would be justified, were I a claim agent, in expecting shippers to be guided by simple suggestions for entering claims which I would adopt for their guidance. For my part, I would not bury claims in pigeon holes for weeks and months at a time before declining them, but I would investigate all claims and honor or decline them within the *shortest possible period* of time.

I would keep in touch with each shipper's facilities for weighing and loading his grain and with his system of verifying his weights. Where I found the shipper's facilities and methods conducive to inaccuracy and shortage I would notify him accordingly and endeavor to have needed reforms inaugurated at his station.

I would inform shippers who did not use due diligence in caring for their weighing machines and who did not have their scales regularly and properly inspected and tested that their claims would not carry the same weight as the claims of shippers who use intelligent safeguards.

When considering claims for alleged losses I would not take into account the volume of business a shipper gave my road, nor would I in any other way give one shipper preference over another in the matter of adjusting claims; but, rather, the reliability of the weights of each shipper and the reliability of the methods and the equipment used by each would be the determining factors. Similarly, would I investigate and consider the reliability of the weights returned from the unloading point.

Nor would I neglect to lay down reasonable rules for the guidance of terminal weighmasters; and if they would not co-operate with me by living up to these reasonable rules I would notify them, as I notified the shipper who used unreliable methods and scales, that their reports would have little or no weight with me.

Were I a country shipper, on the other hand, my whole endeavor would be to build up a reputation for accurate weights so that a claim agent would not have the courage to decline any of my claims without first conscientiously investigating. I would install good scales in such a manner as would insure correct weights. I would then acquaint Mr. Claim Agent with the character of my equipment, with my methods of weighing and loading, and with the measures I had adopted to protect my weights. I would also familiarize the railroad's local forwarding agent with these matters. Similarly, would I impress upon Mr. Terminal Weighmaster the fact that my equipment and my methods were reliable. I would *prove* to him, if I could, that my weights were just as good as his weights. I would co-operate with him by mailing him at the time of each shipment a record of my loading weight for each and every car, and I would expect him in turn, in case of any excessive discrepancy in the weights, to make an immediate and thorough investigation at the time of unloading. While waiting for his report I would make just as thorough an investigation at my elevator as I expected Mr. Weighmaster to make at the unloading elevator; and if these two investigations indicated the accuracy of the weighings at both ends of the line, I would expect Mr. Claim Agent to pay the shortage, provided, of course, my grain was in condition during transit. Such procedure and such methods would soon convince the railroads that I was on the square, and that my word and my weights were to be depended upon, which would insure fair and honest treatment of my claims.

You have perhaps heard that one of the extensive grain carrying railroads has inaugurated, or is about to inaugurate, a system which will compel shippers to file with its local forwarding agent a certificate giving in detail the loading weight and the manner of obtaining that weight. The certificate blanks are to be furnished by the railroad company, and the information asked for can be readily filled in by the shipper as a majority of the questions can be answered by a cross mark. These certificates will require the shipper to furnish the forwarding agent, before the car leaves the loading station, with information as to the kind of grain loaded and as to the condition of the grain; i. e., whether or not it

*An address by the author before a meeting of the Western Grain Dealers' Association at Sioux City on June 28, 1912.

was hot; also the style of scale used in weighing and under whose supervision the scale is regularly tested and the date of the last test; and whether in loading the grain was handled through a bin or sink between scale and car, or handled directly from scale to car.

The certificate further requires from the shipper much other detailed information of a character that should enable the claim agent ready to determine the probable accuracy of the weight reported at the point of origin, such as, for example:

Where wagon scales are used, the date of weighing each load; also whether the wagon was weighed empty each time, and the distance between the car and the wagon scale, and whether the roads were dry or muddy.

Where automatic scales are used, the certificate wants to know the commencing and ending numbers of the register. It also asks for the number of draughts tested during the weighing of each load and the result of each test.

In case of estimated weights, the certificate calls for the average depth of grain as well as the actual test weight per bushel of the grain. It also requires that the certificate be signed by the man who actually weighed or estimated the grain.

Without discussing the need for each detail which these certificates require of the shipper, I want to say that the plan as outlined looks feasible and

for him within forty-eight hours after arrival, and must pay on the full quantity stated in the bill of lading, whether that full quantity be delivered or not. In cases of shortage in delivery the Government returns to the importer the overpaid duties after everything has been adjusted. It is under such conditions that a very appreciable percentage of the \$3,000,000 is due to be returned to the importing concerns, says the Journal of Commerce. Some merchants are chafing under what seems to them to be an unreasonable delay on the part of the Collector of the port in adjusting and liquidating their claims for overpaid duties. Claims on such payments made in April and May had not been adjusted in August, and importers claim that this delay is causing them inconvenience, to say nothing of the annoyance they are being subjected to by their foreign shippers, with whom a full settlement may not be made until all customs rebates are paid in full. Generally speaking the Government is about three months behind on liquidations, which is a great improvement over last year, when they were six months behind.

NATIONAL MALTING FIRE.

The grain elevator of the National Malting Co. at 103d Street and the Fort Wayne tracks, Chicago, was burned on September 3. The fire (supposed to



RUINS OF ELEVATOR OF NATIONAL MALTING COMPANY.

fair, and I see no reason why a shipper should not be glad to furnish the railroad's local agent at the time of shipment with information relating to the weighing and unloading of his grain. He should be willing to furnish the carrier a verification of the loading weight which he expects to use as a basis for filing claims in case any excessive variations should be shown. Similarly, there is no good reason why the man who weighs the grain at destination, whether he be a public weighmaster or a private individual, should hesitate or refuse to supply the shipper, the consignee, or the railroad with all the information he has recorded relative to the condition and seals of the car and the unloading and weighing of the grain.

I have been informed that the road inaugurating the weight certificate plan which I have just described has also arranged to have a leakage form accompany each weigh bill for use of agents and for the conductors of trains. This certificate, I understand, is to have a diagram of a car on its face, and the agents and conductors will be required to record on this diagram a report of any leakage of grain in transit, or any broken seals. This should eventuate in good to the shippers as well as to the railroads.

DUTIES PAID ON POTATOES.

Records kept by a New York produce importing house show that more than \$3,000,000 in duties have been paid on potato imports alone during the past season. Two-thirds of the total was collected at the port of New York. Under customs regulations an importer must pay the duty on anything unloaded

(supposed to be due to spontaneous combustion) was discovered about 1 o'clock p. m., and within 15 minutes the elevator was destroyed. The building contained about 450,000 bushels of grain and malt. Several employees in the building had narrow escapes. One fireman was injured by a fall of sheet iron from the roof. The loss is estimated at \$200,000.

TO STOP BIG FORGERIES.

I. A. Pribble of Salina, Kan., has been working on a plan to protect shippers and receivers of grain in respect to the identity of the original bills of lading and the arrangement he has worked out has been submitted to E. J. Smiley, secretary of the Kansas Grain Dealers' Association. Mr. Pribble says of his plan:

There is some discussion among grain dealers regarding the protection of shippers and receivers of grain with respect to the identity of original bills of lading. I believe that grain dealers and all users of "shippers' orders" bills of lading should get together and form a plan to prevent forgeries. I believe that a guaranty company could be organized under the same laws as govern the insurance companies, the cost not to exceed three to five dollars per year for each member of firm. The authority for such a guarantee could be shown by using a rubber stamp, similar to that now furnished by the railway weighing associations, each stamp to bear the number of the guarantee, and which could be stamped on the back or the face of the bill of lading, so that the identity of shipper's order bill of lading would be guaranteed by an authorized company, thus relieving the shippers, receivers and the banks of all responsibility. The banks, as well as the receivers, would never question the validity of such a bill of lading, and I think the railroad companies would join heartily in an arrangement of this kind.

It is absolutely necessary on account of the large amounts involved and the method in use today in

the collection of the invoice value of grain shipments, that the railroad companies, as common carriers, stand between the shipper and the receiver in the delivery of the grain, and in no other way can this be done, use bills of lading as collateral, so that the shipper's order bill of lading system must be maintained. An insurance company of this nature could well afford to take all the risks incident to guaranteeing the identity of order bills of lading, as they could maintain a law department, as well as a service bureau; and before a dishonest shipper would attempt to forge a bill of lading I believe he would think over the consequences before he took the chances.

I believe that something like the system I have outlined will be necessary to protect the interests of all concerned.

[For the "American Elevator and Grain Trade."] CONCERNING SALES OF GRAIN FOR FUTURE DELIVERY ON MARGIN.

BY L. C. BREED.

"No living man can tell what the price of wheat will be in the future, not even a little way ahead," once remarked the largest operator in the Mississippi Valley outside of Chicago. "Whenever I go into the market," he added, "either to buy or to sell an option, I do so, so to speak, with fear and trembling."

In this connection it is proper to call attention to the course of the market in the past three months, if a striking example of the truth of the statement of this veteran speculator needs confirmation; and notwithstanding that in the long run he has been successful in forecasting future values in wheat, for he rarely operates in any other kind of grain, yet he is always fully aware of the variety of contingencies he must face each time that he makes commitments, not the least of which, in case of the growing crops, are weather conditions.

In view of the fact that in Congress the question of curbing speculation in grain, cotton, etc., is frequently mooted, it would seem to be wise for the various boards of trade on whose floors grain is dealt in for future delivery to take the matter into serious consideration; since even now they are forced to take the defensive and fight the proposed legislation.

To the outsider the spectacle of a set of men in a group on the floor of an exchange at the present time offering to sell round lots of wheat to their fellow members, or through them, to any person whom they may represent, deliverable in May, 1913, seems like a wild proposition. If these sales when made should not exceed the volume of contract wheat in store in the primary markets, the business would appear to be legitimate, especially if the price for May wheat was based on the carrying charges. But this, in fact, is seldom the case, for often wheat in store is held at a higher price than for future delivery. Owing to recent developments this season witnesses wheat on the healthiest commercial basis, domestic and export, known in late years. At the same time, where is the warrant for selling May wheat at only three cents per bushel over September, as a commercial proposition?

It would appear that the grain trade should open its eyes and read the hand-writing on the wall; for the signs of the times point to the elimination of excessive speculation in the staff of life. It may not come soon, but it will ultimately be checked. In view of this, would it not be well for the boards of trade to take the matter in hand and by wise action forestall this revolutionary and drastic measure? The writer is inclined to believe that the adoption of a rule that no delivery should be offered or contracted for in excess of six months from the date of sale, would be a step in the right direction; and it is presumable that, ultimately, the period will be wisely limited to three months.

Of course this article has reference to selling on margin, the method employed in almost all speculative business.

A farm paper recommends that in binning damp grain farmers can assist the drying by throwing some dry bricks into the grain to absorb the moisture. Nothing is said as to what becomes of the bricks eventually.

[For the "American Elevator and Grain Trade"]

CONSERVATION OF RESOURCES.ECONOMIC IMPORTANCE OF PRESERVING THE FERTILITY
OF THE ARABLE LANDS AND THE FORESTS.

BY JULIAN KUNE.

The many encouraging signs which of late have appeared give evidence of the awakening of the agricultural world and its many dependent industries to a determination to conserve our natural resources. Conventions in which the various subjects relating to the improvement of our tillable lands and forests are discussed and improvements suggested are being held all over the country, the area covered by each meeting being not limited to the Middle or Western States, but they have invaded even the New England States. The last forestry conference was held at Bretton Woods, New Hampshire, under the auspices of the Society for the Protection of New Hampshire Forests, the Forestry Commission, the American Forestry Association, the Association of Northeastern Forests, and the New Hampshire Timberland Owners' Association. At this annual meeting the committee on the natural forest reserves reported the purchase of 336,594 acres of forest lands in the states of Georgia, Virginia, North Carolina, Tennessee and New Hampshire. It is not to be doubted that forestry has become a living issue all over the United States, not only because it would save the Nation untold millions of wealth now wasted by unscientific harvesting of timber and destruction of future supplies, but because also the influence of forests would be of great benefit to agriculture.

It is a well-known fact that in the Atlantic States the depletion of the perennial flow of springs and streams and the increased flood action arise from indiscriminate forest destruction; while in the West and Southwest nothing but effective forestry can save that portion of our country from destructive freshets and devastating floods. We know that torrents originate mostly in mountain lands which are bare of forests; a forested watershed can have no torrents. The preservation of forests at the headwater of rivers is therefore of the utmost importance for reasons above stated and because the destruction of forests at the headwater of rivers affects the regularity of their flow, and a great many manufacturers who use water power have testified that of late years the rivers which supply their power have been less regular. As the mountain forests of the Far West are largely still owned by the Government, the destruction of forests at the headwaters of rivers originating there can be more easily prevented than can those in the East, which are privately owned, and over which, under the existing laws, the federal Government can have no control.

Because of former lack of system, forestry in the United States is still more or less but a side issue among our governmental activities, its executive management being controlled by three distinct departments, to-wit, the Land Commissioner, who is part of the Department of the Interior, the Agricultural department and the War Department. The result of such a division of authority is that, instead of trained foresters, an army of political favorites have been employed who know but little of forestry and how to fulfill the duties involved. Yet the preservation of the forests is of sufficient importance to deserve the establishment of a separate department in conjunction with the preservation of the waterpower sites, irrigation and of other unexploited resources. As the system now is, the trained foresters (and there are some well-trained foresters in the service) are without independent power, but must yield their judgment at the dictates of department heads, who are ignorant of the very first principles of the science of forestry and of existing conditions in the natural forest reserves.

Does conservation of forests pay? is a question that may be answered unqualifiedly in the affirmative. It always pays to husband resources, whether natural or manufactured, for future use; but aside from this I could cite, if space would permit, many instances where forests pay through the production of various forms of valuable materials, such as tan-

bark, pulp, tannic acid, turpentine, aside from wood, timber and building lumber, etc., which now are the chief objects of their removal.

Reclamation in forestry means the constant replanting of trees to take the place of those that are cut or are destroyed by fire or some other cause. Under the present system of cutting our forests will be barely sufficient to supply for a few years the necessary timber and lumber used, then we will have to supply our future needs from the forests publicly owned; hence it is obvious that the governments of the states and of the United States must assume the supervision of the privately-owned forest lands, as well as of those belonging to the Nation.

In this connection, it may be of interest to mention that this subject has already aroused the people of many states to action. There was a bill introduced into the late legislature of Louisiana, the purpose of which was, "To preserve and to protect the timber and lumber resources of the state of Louisiana, and to prohibit the felling, cutting down, girdling or deadening of trees of less diameter than twelve inches, measuring four feet from the base, whether on public or private lands, and make the same a misdemeanor, and to provide a punishment therefor on conviction; provided always, that this shall not apply to timber felled or cut down on privately-owned lands for fencing or other domestic purposes, exclusively for the use of the owner of the lands or his tenants; nor shall it apply to the clearance of lands with the *bona fide* intention of erecting houses or putting the land so cleared under cultivation, nor for making and cleaning ditches, nor for the purpose of private or public sewers or other public works." If all the states would enact a similar law, then the problem of safe-guarding our forests would soon be solved.

At the present time there is but little grazing of cattle on public forest lands, but some twenty years ago tens of thousands of cattle, sheep and horses grazed all over the public domain, both on the prairies and on the forest lands of the far Western States. Since that time a very large portion of those Western lands have been brought under cultivation. There still remain, however, large areas of public forest lands which should be protected against damaging wasteful grazing.

Sheep grazing in forests is considered the most damaging of any, because of their too close group feeding and their habit of resting close to each other. Sheep also travel in close groups, and their hard and sharp feet cut the ground and destroy the roots of grasses and young trees. They eat seeds also and bite out the grass roots; feed on brush, and either tread down or bite off or eat young forest trees when other feed is scarce. The saying is that "sheep may follow horses and cattle and find something to eat, but to follow sheep is to find nothing."

One of the saddest of sights is a burning forest. In most cases after the fire gains headway, human efforts to extinguish it are in vain. The devouring Moloch does not stay its devastation until it either lacks further fuel or is conquered by down-pouring rains. Some of these forest fires may last for weeks. I well remember the gloom cast over the whole Western country by the forest fires that raged in northern Michigan, and in the states of Wisconsin and Minnesota during the summer of 1871, prior to the great Chicago fire. It then seemed that those fires were the forerunners of that calamity of the age, the Chicago fire of October 9th, 1871. The only way to minimize damaging forest fires is to prevent them by judicious care-

taking, and that can be done only by adopting a general system of sane forestry patrol by the several states and the general Government.

No one, unless a degenerate, would rejoice at seeing a raging forest fire which would annihilate millions of dollars worth of property which may have taken centuries to develop into a paying asset; yet there are cases when some of the most devastating forest fires have been caused by malicious incendiarism which could be prevented in some cases by effective forestry laws. Besides malicious incendiarism there is criminal carelessness, which causes more forest fires than anything else. The herder of sheep, as a general thing, is a very careless person. He starts fires in the forest for his convenience, either to procure a warm meal or to warm himself, but he often neglects to extinguish those fires when he changes his location, and the result is that the slumbering embers are fanned into a raging fire by sudden gusts of wind. Then there are the mountain residents who are engaged in clearing the brush from their holdings; they, too, are careless in not extinguishing the fires properly. If all the public and privately owned forest lands were brought under state regulations, these devastating fires might be minimized, if not entirely prevented. That such a state control has become a necessity is proven by the fact that already several associations for the protection against fires have been organized in several states. They call themselves, "Fire Protective Associations," and are formed for the protection of vast tracts of forest lands in the states of Oregon, Washington and Idaho. The four fire protective associations of northern Idaho spent for this purpose in 1903 \$52,284 to protect directly 1,257,787 acres of forest lands, owned by members of the associations and indirectly large areas of adjoining forests. The average cost, including fire-fighting, was four cents per acre. These figures with but slight variations represent the cost of fire protection in other states where fire protective associations have been organized, and there is no reason to doubt that by the formation of such associations in other states possessed of publicly or privately owned forest lands, the losses by fire could be greatly reduced.* The only question is, can such voluntarily organized associations confer as lasting a benefit as would a well organized forestry, controlled by the several states or the United States?

*The fire sentinels are reported as having saved the Commonwealth of Massachusetts \$450,000 loss by fires this year up to August 1. That is assumed on the basis of the fact that forest fires last year did damage to more than \$500,000 in the state in the first seven months, and this year only to the extent of \$50,091. As the fire lookout stations have cost only \$20,000 for establishment and maintenance, the economy of the system looks like good business. There are seventeen fire observation stations, and the observers are provided with powerful telescopes and range finders, and expected to look out for fires over a territory about fifteen miles each way from their mountain stations. The exception is on Mt. Wachusett, where the observer has to look away for at least twenty miles in all directions. The observers have no trouble in fair weather, and in the rain it matters little if they cannot see, but in hazy weather they have difficulties, and the state forester has decided to put in fifteen more observation stations throughout the state, to divide the territory so much that all the forest may be seen closely in the dry season. The observers are paid \$60 a month for seven months each season, and they have nothing to do but watch for signs of fires and report them by telephone to wardens in various towns.—[Quoted by the editor of "American Elevator and Grain Trade" from the Worcester Telegram.]

Comments on new Minnesota grain going to market are that it is the best seen in nearly twenty-five years.

Minneapolis elevators will be assessed for taxation on 70,714,741 bus. of grain carried by them during the year ended February 29 last. The tax is one-fourth of a mill per bushel, or about \$17,680.



BOARDING SPECIAL TRAIN FOR THE NORFOLK CONVENTION, G. D. N. ASSOCIATION.

MICHIGAN HAY ASSOCIATION.

Members of the Michigan Hay Association held a very successful meeting at Saginaw on August 15 and 16, with 125 dealers in attendance. President J. A. Heath called the meeting to order and explained that it was called with the object of deciding whether the Association should continue its existence or disband.

Mr. Heath then directed the attention of the dealers to the large attendance and to the evident interest manifested in the meeting, and pleaded for a continuance of the Association in conjunction with the grain dealers of the state.

Mayor Stewart, of Saginaw, welcomed the dealers to the city, H. G. Morgan, of Pittsburgh, responding. Mr. Morgan spoke of hay conditions, and advised the members to buy only the better grades. He also pleaded for renewed interest in the work of this Association.

The meeting next heard Egil Steen of Baltimore, who made a very clever talk, advising the hay men to "make hay while the sun shines." Mr. Steen illustrated his address with several good stories, and upon its conclusion he was heartily applauded.

V. M. Shoesmith, of the Michigan Agricultural

President Heath then called upon the individual members for reports upon the crops in their respective localities. These reports indicated generally a large crop of rather poor quality hay. It was conceded that prices would be much lower.

Following these reports the report of the committee on by-laws was heard and also that of the nominating committee, which were unanimously adopted. The latter report recommended the election of the following officers: President, Charles Wolhan, of Birch Run; vice-president, F. E. Nowlin, of Albion; second vice-president, H. D. Bent, of Shepard; treasurer, Albert Todd, of Owosso. The directors are L. S. Barlow, of Port Huron; W. H. Sturgis, of Flint; H. E. Chatterton, of Mount Pleasant; A. E. Cutler, of Adrian; James Kerr, of Melvin, and D. Mansfield, of Remus.

President-elect Wolhan was escorted to the chair and after appointing minor committees declared the meeting adjourned.

GRAIN FACILITIES AT TEXAS CITY.

The business men of Texas City, Texas, are very enthusiastic over its possibilities of becoming one of the large ports of export of this country and are continually adding to its growth and facilities. We

for the shipment of at least cotton and grain. When it is considered that Texas alone is now growing over 4,000,000 bales of cotton and can grow double that amount, it will be seen that there is sufficient inducement and incentive for the profitable investment of capital in the building up of a fine harbor at Texas City.

POMERENE BILL PASSES THE SENATE.

The Pomerene bill of lading bill passed the Senate on August 21 without a dissenting voice. It is practically identical with the bill of lading law passed recently by several states; and the National Conference on Uniform Laws will offer it for passage in all the states of the Union, in order to insure uniformity to bills of lading in both interstate and intrastate commerce.

Senator Pomerene, in speaking to the bill on its passage said in brief that bills of lading for about \$25,000,000,000 worth of property are issued annually by common carriers, and that on them banks lend annually about \$5,000,000. The bill is entirely satisfactory to the American Bankers' Association, which will take steps to urge the passage of the bill as it stands through the House next winter; and at the Association headquarters in New York it is believed the outlook for satisfactory action in the very near future is better than it ever has been since the movement for legislation began. Three or four years ago the so-called Stevens bill of lading bill was put through the House and then was pigeon-holed in the Senate. It has never been possible since that time to secure Senate action, and the success now had is, therefore, considered exceptionally gratifying. It is learned by the *Journal of Commerce* that "the chief obstacles to success in the House are found in the position taken by Chairman Adamson of the committee on interstate and foreign commerce, who is a strong states rights man and is understood to regard the legislation as an invasion of the appropriate field of the state legislatures. Advices from Washington are to the effect that the committee will be likely to overrule Mr. Adamson should he persist in this position. On several recent occasions such action has already been taken notwithstanding the criticism upon the chairman which is implied in it."

In its present form the bill contains the following provisions:

Sec. 2. That every bill must embody within its written or printed terms the date of its issue, the name of the person from whom the goods have been received, the place where the goods have been received, the place to which the goods are to be transported, a statement whether the goods received will be delivered to a specified person or to the order of a specified person, a description of the goods or of the packages containing them and the signature of the carrier. An order bill shall have the words "order of" printed thereon immediately before the name of the person upon whose order the goods received are deliverable. A carrier shall be liable to any person injured thereby for the damage caused by the omission from an order bill of any of the provisions required in this section.

Sec. 6. That order bills issued in a State for the transportation of goods to any place in the United States on the Continent of North America, except Alaska and Panama, shall not be issued in parts or sets. If so issued the carrier issuing them shall be liable for failure to deliver the goods described therein to anyone who purchases a part for value in good faith, even though the purchase be after the delivery of the goods by the carrier to a holder of one of the other parts.

Sec. 7. That duplicate bills must be so marked and failure to do so renders the carrier liable.

Sec. 9. That the insertion of "order of" does not limit the negotiability of the bill.

Sec. 10. Binds to its terms the consignor who receives a bill without objection.

Sec. 25. That when goods are loaded by a shipper, at a place where the carrier maintains an agency, such carrier shall, on written request of such shipper, and when given a reasonable opportunity by the shipper to do so, count the packages of goods, of package freight, and ascertain the kind and quantity, if bulk freight, within a reasonable time after such written request, and such carrier shall not, in such cases, insert in the bill of lading "Shipper's load and count," or other words of like purport indicating that the goods were loaded by the shipper and the description of them made by him.

Sec. 30. That an order bill may be negotiated by delivery where, by the terms of the bill, the carrier undertakes to deliver the goods to the order of a specified person, and such person or a subsequent indorsee of the bill has indorsed it in blank.

Sec. 31. That an order bill may be negotiated by the indorsement of the person to whose order the goods are deliverable by the tenor of the bill. Such indorsement may be in blank or to a specified person. If indorsed to a specified person, it may be negotiated again by the indorsement of such person in blank or



PREMISES OF THE TEXAS CITY TERMINAL CO., TEXAS CITY, TEXAS.

College, delivered an address on "Alfalfa," and told of its proper cultivation and the success attending its introduction into Michigan.

The dealers discussed the advisability of continuing the work of the Association and upon a rising vote being taken decided unanimously in its favor.

Secretary E. C. Forrest, of Saginaw, told of the difficulties he had met with and the lack of cooperation with the secretary as well as the non-payment of dues. He cited the permit issued to Michigan dealers during the prevalence of the hoof and mouth disease several years ago, and claimed that this single action, secured by officers of the Association was sufficient to pay each dealer's dues for twenty-five years.

Geo. F. Dimond and Henry L. Goemann, of Toledo, spoke of the benefits of association work and indorsed the action of the dealers in continuing this particular Association.

A committee of five was then appointed by President Heath to draft amendments to the constitution, to providing for the admission of grain and potato dealers.

The committee on nominations was named, after which the meeting was adjourned.

During the evening the members were entertained at a vaudeville show at the Jeffers Theatre, the Saginaw Milling Co. and the Reliance Mercantile Co. being the hosts.

On Friday morning the dealers again met and heard the address of J. Vining Taylor, secretary of the National Hay Association, on "Organization and the Work."

show herewith a late picture of the 500,000-bushel concrete grain elevator owned by the Texas City Terminal Company, of which Harvey A. Thomas is secretary. It was built for them a year ago by James Stewart & Co., of Chicago. The elevator was fully described in our pages at the time of its completion, and has been giving excellent satisfaction as a modern, economically working house.

Speaking of Texas City, Major John M. Carson, Special Commerce Agent of the Federal Bureau of Manufactures, Department of Commerce and Labor, recently said:

The work of building up the harbor is wisely planned. So far as construction has been carried on, it is up-to-date and not only will meet the present requirements, but will take care of the immediate future, even if no further work was done. The warehouses are not so extensive as those in some of the large European ports, but as far as they go they are equal to them in all the economic appliances for the handling of cargo.

It would hardly be fair to compare a city of two or three years' growth with the older cities of Europe, but there is nothing better on the Atlantic coast of the United States than may be found at Texas City, and those in charge of the building up of the harbor for the shipment of merchandise, by the work already performed, give evidence of progressiveness and an appreciation of what is needed to make Texas City the leading port on the Southern Coast. If the plans already outlined are carried on with the same liberality and wisdom Texas City will attract much of the commerce that now goes through North Atlantic ports and consigned to those of Europe and ports of the Levant and the Orient.

Galveston Bay offers a natural outlet not only for the large and rapidly increasing crops of Texas, Oklahoma and contiguous territory, but for the great Northwest as well; and it seems to me that with a port at Texas City offering modern facilities and all the economies that go with it for the handling of merchandise, it should become a great port

to another specified person. Subsequent negotiation may be made in like manner.

Sec. 32. That a bill may be transferred by the holder by delivery, accompanied with an agreement, express or implied, to transfer the title to the bill or to the goods represented thereby. A straight bill cannot be negotiated, and the indorsement of such a bill gives the transferee no additional right.

Sec. 37. That a person who negotiates or transfers for value a bill by indorsement or delivery, unless a contrary intention appears, warrants that the bill is genuine; that he has a legal right to transfer it; that he has knowledge of no fact which would impair the validity or worth of the bill; that he has a right to transfer the title to the goods, and that the goods are merchantable or fit for a particular purpose whenever such warranties would have been implied if the contract of the parties had been to transfer without a bill the goods presented thereby.

[For the "American Elevator and Grain Trade."]

PROMOTING AGRICULTURE IN JAPAN.

CEREAL PRODUCTS OF JAPAN AND THE SCIENTIFIC AND FINANCIAL EFFORTS TO INCREASE THEM.

Japan has had under cultivation to rice this year 2,857,811 cho (6,981,637 acres), and 2,400,043 cho (6,890,105 acres) under other cereals. These crops, however, engage but a part of the farming population, which in that country still continues to outnumber the urban population, agriculture being the occupation of 60 per cent of the entire population of the country and is the greatest of all Japanese industries, as we are informed by "The Twelfth Financial and Economic Annual of Japan," published recently by the Department of Finance. Some statistics of 1911 cereal crop fields, found in the same volume, may be interesting here, reducing cho to acres (1 cho=2.45 acres), and koku to bushels (1 koku=5.11 bushels):

Article.	Acres.	Bushels.
Rice (all sorts)	7,284,029	254,250,852
Barley	1,466,487	47,961,530
Millet	82,352	2,160,815
Soy Bean	1,171,438	17,357,239
Small Red Bean	345,634	4,935,217
Buckwheat	383,650	6,501,148
Rye	1,630,723	38,355,694
Wheat	1,223,052	25,600,882

This gives a crop of the bread grains, strictly speaking (wheat and rye), of 63,956,576 bushels, but as is seen by the table, these form but a small part of the cereal foods of the people, while, in addition, the potato (white and sweet) crop of the country is very large, being equal to about 140,000,000 bushels of 60 pounds each.

In Japan as elsewhere throughout the world, the rising cost of living has turned the attention of the authorities toward the enlargement of agricultural returns, and the "readjustment of land" is deemed of vital importance as the first step toward agricultural reform. This "readjustment" would include the enlargement of the small and irregular plots of arable land, to redeem waste lands, to straighten the roads and canals, to utilize facilities for irrigation and to promote the use of machinery. In 1899, therefore, the government promulgated a law to this end, which granted numerous special favors to encourage co-operative effort. The effect of the law was good, but as there still remained, after nine years, much to be done along the lines indicated, the government in 1909 amended the law in a way to stimulate reclamations and to encourage a change of crops.

The government has established a central experiment station at Tokio, with branches in the middle and northeastern provinces, supplementary to which are the prefectural stations now found in most of the prefectures. Here are carried on all the functions common to such institutions all over the world, to-wit, the study of methods and the carrying on of investigations relative to soils, fertilizers, seeds, plant diseases and insect pests, stock and plant breeding, etc., as well as the study of ways, means and methods of converting raw agricultural products into finished foods and feeds ready for human and animal consumption.

Furthermore, the co-operation of the agricultural workers is encouraged by the establishment of agricultural societies, formed in accordance with the provisions of the laws enacted for that purpose. These societies are of four classes, to-wit, those formed by the Empire (1), by Hokkaido and other prefectures (46), by districts (592), and by the municipalities (about 12,000), all of which

are subsidized by the state or by the local governments. The last named, the lowest of the four, are composed of persons directly engaged in agriculture or possessing agricultural lands. "To induce persons engaged in agriculture to organize guilds of various descriptions and thereby to remove the evils and reap the advantages arising in the pursuit of their calling by methods of mutual correction," says the "Financial and Economic Annual," "the government issued laws to be observed in the formation of staple products guilds, tea guilds and cattle and horse guilds." There are, therefore, in the country more than 200 tea guilds, organized into guild associations and one central society federating the guild associations. These are in communication with each other and co-operate to control the production and sale of tea as well as the quality offered for sale, in order to promote production of high quality tea only.

In order to cheapen capital employed in agriculture the government has established the Hypothec Bank of Japan and various "agricultural and industrial" banks and also the Hokkaido Colonial Bank. The first named is much like the French *credit foncier*, and makes long-time loans on (1) real estate ("unmovable property"), redeemable in annual payments within any period named of not less than five years nor exceeding fifty years; (2) to prefectures and municipalities; (3) without security on arable lands in course of "adjustment," to be repaid in annual payments; and (4) without security to guilds, to be similarly repaid. It is also authorized to take up debentures issued by authorized agricultural and industrial banks; to receive deposits of specie up to an amount equal to its own capital, and to purchase government bonds (not exceeding in amount one-fourth of its capital), as well as discount bills and make short-time loans on collateral. The Industrial Bank of Japan, on the other hand, omits the *credit foncier* features—is rather a *credit mobilier*, to make loans on national, local and industrial bonds as well as do a discount and trust business.

The agricultural and industrial banks are the institutions that come into direct touch with the people. They are the local financial houses that make the long-time real estate loans. One such bank has been or will be established in every prefecture (within which it has, as a rule, an exclusive business), and all operate in connection with the Hypothec Bank, which is, so to say, a sort of "central reserve" bank. One kind of loans of these banks is redeemable on annual payments within thirty years, the security being real estate or certain kinds of personal property in the form of rights, etc., the latter loans being for not to exceed five years and limited to one-fifth of the security values. Otherwise the loans are correlative to those of the Hypothec Bank. Like that bank, they are authorized to issue debentures to an amount not exceeding five times the paid-up capital of each, or "the balance of the total amount of outstanding loans redeemable by annual installments after deducting therefrom that part thereof which has been given as security for money borrowed from the Hypothec Bank. These agricultural and industrial debentures must be redeemed by means of drawings at least twice a year in amounts proportionate to the amount thereof to be redeemed in the same year." The Hokkaido Colonial Bank performs the same functions as the Hypothec Bank for the island of that name (formerly better known as Yezo).

In addition to these financial houses there are nearly 9,000 co-operative societies having for their object the purpose of furnishing credit to agriculturists by concentrating small parcels of capital and to offer opportunities for self-help, and to this supply of capital the state itself has since 1910 added loans at a low rate of interest to facilitate the "readjustment" of agricultural lands, making such loans through the Hypothec and Hokkaido Colonial Banks. A portion of the postal savings bank deposits also are loaned to the guilds.

In spite of all these props to agriculture we find, however, that the prices of agricultural products in 1910 were higher than in 1901 in proportions

shown by the index numbers as follows (for a few typical commodities):

Commodities.	1901.	1910.
Rice	101	114
Barley	88	111
Rye	95	126
Wheat	90	136
Soya Beans	92	119
Red Beans	80	128
Soy	104	122
Sugar, white	98	136
Sugar, brown	101	134
Tea	106	131
Beef	107	135
Eggs	94	119
Milk (the one exception)	98	95
Hay	121	152

A PIKE COUNTY ELEVATOR.

A. M. Applegate of Pearl, Pike County, Ill., who there buys grain and produce and sells flour, feed, coal, etc., has a better plant employed in his business than the rather meager illustration herewith would indicate; for the buildings are all well constructed and equipped, quite in keeping with homely and rugged and genuine character of "old Pike County" and its people, renowned in song and story.

The elevator itself is 30x30 feet in size and stands on a stone foundation. In the basement (with 7-foot ceiling and concrete floor) there is a cylinder corn sheller fed by a drag conveyor from the corn crib, which is 40x48 feet in size. The basement has also a wheat sink and two elevator boots, one for corn and the other for wheat, rye and oats. The storage capacity is 30,000 bushels for the elevator and crib.

On the first floor of the elevator is a driveway that connects with another extending the full length of the corn crib. In this driveway are two dumps for ear corn and in the elevator driveway is a 4-ton



A. M. APPLEGATE'S ELEVATOR AT PEARL, ILL. Howe Standard Scale. The bins are all hopper-bottomed.

In the cupola are the corn and wheat cleaners and a hopper scale for loading out grain.

The machinery is all driven by a 25-horsepower Columbus Gasoline Engine located in a detached power house 12x14 feet in size and built of stone and brick and having a concrete floor.

A building 16x30 feet in size, for flour and feed, located west of the elevator and facing the same private railroad track; an outside office, with Fairbanks Scale, located south of the flour house and the driveway leading to the elevator; and a coal and hay building located 100 feet west of the flour house but not shown in the picture, complete a plant that houses what is probably the most important commercial enterprise in Pearl.

RICE HELD UP.

The South Carolina food inspectors recently held up in Charleston 120 tons of rice products shipped into that state from Louisiana. Commissioner Watson, says the *Columbia States*, declared that not only had the goods been held up by the inspectors upon stop-orders but he had since had the goods thoroughly examined, and not one pound of them will be sold in South Carolina, because the goods were in violation of all regulations in force prior to the promulgation of the new regulations on August 10, but in just what respect does not appear.

Though the Western corn season has practically ended on August 31 a carload of corn from the West that was unfit for any purpose was found in Spartanburg County, and was taken off the market in the same manner as the rice products referred to above.

Kansas City on August 14 reports a car of wheat that unloaded 2,005 bushels.

[By Permission.]

CROP IMPROVEMENT IN IOWA.*

BY M. McFARLIN.

As to my remark about the State College not having done as much for the winter wheat industry as they might have, it was in my mind what Kansas, through their agricultural college work, has done for winter wheat in that state, and my understanding is that we are at least ten to twelve years behind them in this. There would seem to be no question but that we need to maintain at least the present acreage in this state of small grain (compared with corn, say one-half the acreage), because of the need of seeding down and rotation of crops, also for keeping up soil fertility; and any increase should be, and my prediction is it will be for some years to come, largely of winter wheat. We have for three years now had fine crops of winter wheat generally, in this state, this year being an unusual crop; but I can not think that we can continue these good crops without careful work along the lines of the right kind of seed, proper attention to soils and their preparation.

A comparison of wheat acreage in this and neighboring states is interesting. For 1911 by the government report it is in round numbers:

Iowa—Winter	280,000
Spring	360,000
Total	640,000
Kansas—All winter	4,720,000
Illinois—All winter	2,620,000
Nebraska—Winter	2,770,000
Spring	310,000
Total	3,080,000

Another way of putting it would show for winter wheat alone: Iowa—Acreage, one to nine acres in Illinois; one to seventeen acres in Kansas; one to ten acres in Nebraska. From this showing of acreage can we not see why we are buying such large quantities of flour from other states?

While on this subject of grain crops, I wish to express some views. We are planting in round numbers in this state 10,000,000 acres of corn and 5,500,000 acres of small grain. Notwithstanding the opinions of live stock men, it is my belief that we will increase the acreage of corn as well as small grain, because of the live stock interests, which it appears can not be large of different kinds without corn as a basis of feeding. Then the industries consuming corn that draw their supplies largely from Iowa, if the surplus coming from the farmers is cut down, would influence the price to a level that would make it unprofitable for feeding and that much harder for the feeder. It is not reasonable to suppose that the large corn consuming plants at Davenport, Clinton and the two at Cedar Rapids are going out of business or to backhaul corn from Illinois; and the same may be said of the large oats consuming plants at Muscatine, Fort Dodge and two at Cedar Rapids.

In the matter of oats, we are raising around 5,000,000 acres yearly; and surely our state should be doing everything possible to make this a more profitable crop than it has been generally for the last few years. It is my firm conviction that since the live stock interests have had the principal attention and expenditures of state money for agricultural purposes in recent years, it is of much more importance now for all the farmers that a larger proportion of this expenditure be made in the agronomy department on soils and farm crops; and as corn has had most of the attention and expenditures in these recent years, surely small grain should now have its inning.

It is my understanding that this agronomy work of soils and grain being carried on by Kansas, North Dakota, Minnesota, Wisconsin and Illinois, especially Wisconsin, is of considerable more value and extent than it is in our state, whereas none of these states has the total acreage of grain that Iowa

has, with the exception of Illinois, which has some more, and Kansas, about the same acreage as Iowa.

If I am mistaken in this regard, will be glad to be corrected.

Then taking another view. In round numbers the total acreage of the three principal grains—viz., corn, wheat and oats—in the above neighboring states shows as follows:

Iowa	15,440,000
Illinois	17,000,000
Kansas	15,400,000
Nebraska	13,000,000

And this when the acreage of tillable ground is much larger in this than in any of the other states named. If this tremendous interest of the 15,400,000 acres of the three principal grains now grown in our state is not worthy of large expenditures and great effort to improve it in production and quality and is not entitled to much more than it has been getting so far, then my judgment is at fault, especially and particularly since there are so many more of our farmers who are renters or small farmers, and need now, as well as for years to come, to sell grain from the farms.

BROOM CORN.

Cutting (or "pulling") the broom corn brush began in the Southwest about August 1, or before in the farther South, a week or more later than usual for Oklahoma and Kansas. There were some rumors of damage to the Oklahoma brush by the rains and therefore only the later brush will be choice stock. The yield in the Southwest will be larger, so that it is more than likely the price will decline heavily, probably bringing only 50 per cent of last year's top price of \$135 per ton.

Oklahoma City and Wichita are rivals for the profit of marketing the brush. The Oklahoma City Chamber of Commerce has asked the railroads centering there to name a storage-in-transit rate, and store houses will be built or rented, so the full crop may be brought in. This plan will enable the broomcorn buyers to locate quickly any amount of the product they wish and relieve them of the lack of hunting buyers as at present. At Wichita a new warehouse is under construction by the Mercantile Warehouse Company. The building will be one story high and will cover 57 by 290 feet of ground, and will have a capacity of 160 carloads of broom corn. It will be the central warehouse for the company, which has several branch warehouses in the Southwestern broom corn districts.

On August 14 the brush growers of Bee County, Texas, met at Beeville and voted to maintain the price of brush at \$100 per ton Beeville, this to be the price for one month or longer if necessary. Wm. Ronnel of the Tuleta Farmers' Institute, was appointed chairman of the committee to advise by letter the broom manufacturers of the country as to the amount of brush in Bee County and the prices at which it can approximately be bought. It was estimated at this meeting that the crop in that county and in the adjoining section around Berclair in Goliad County would reach a total of approximately 1,500,000 tons.

California is also coming on as a tentative brush producer. Fresno County had 25 acres under the crop this year that gave most satisfactory results; and in the far South a land company of El Centro, Imperial County, whose property is at Batague station, across the line in Mexico, are planting a 500-acre tract, which is reported doing well. Only ten acres a day are being planted, so the pulling will come on gradually and the brush can be handled in good shape during harvest. Sheds are being erected for curing the brush.

Wm. Bynam is agent for the National Elevator at Eagle Bend, Minn.

The Pacific slope farmers are still inconvenienced by a shortage of grain bags, although both grain men and some makers deny that there is a shortage. The total supply on August 1 was estimated at 21,008,000 Calcuttas and 12,500,000 American made and second hands, a total of 33,508,000. If as estimated the crop to be sacked was 70,000,000 bushels, there would be a shortage of 8,992,000 sacks.

COMMUNICATED

[We invite correspondence from everyone in any way interested in the grain trade on all topics connected therewith. We wish to see a general exchange of opinion on all subjects which pertain to the interest of the trade at large, or any branch of it.]

GURNEY SEED AND NURSERY CO.

The American Elevator and Grain Trade: The Gurney Seed and Nursery Co. have had a very successful year and have increased their stock to \$100,000; \$65,000 of which is common, paid up; \$35,000, 6 per cent preferred, redeemable by the company in five years, at part with accrued interest.

We are also building a new tree storage and packing house, 64x100 feet in size. This will be a concrete building and up to date. If we can complete this tree storage plant in time we shall erect two 150-foot greenhouses yet this fall. Yours very truly,

GURNEY SEED & NURSERY CO.,

Yankton, S. D. Per D. B. Gurney, Sec.-Treas.

APROPOS CAR SHORTAGE.

Editor American Elevator and Grain Trade: Judging from the facts already clearly evident on some lines and our interviews with representatives of several railroads, we have arrived at the conclusion that a "car shortage" is inevitable, possibly in the near future. At least, and without a doubt, there will be a market scarcity of cars which will last throughout the fall and into the winter. This is a feature that should be kept in mind, so that shippers will be in a position to reduce their worries (or worse) to a minimum. As ability to get cars will depend solely upon the supply the several railroads will have available for distribution, we therefore consider it very important that all shippers' orders for empty cars be written orders in duplicate so that the shipper may retain and preserve the duplicate (copy) for further reference.

Some shippers may believe that ordering cars in this manner is unnecessary, but we have found, and the experience of others in the trade is, that such a record of orders will be convenient to the shipper, and also of significant value, and that such a correct record furnished to the agents always commands the respectful consideration of the railroad officials. Therefore, it is a method that should be adopted to avoid differences or misunderstandings or errors that are so numerous where any other course is pursued. Yours truly,

Chicago, Ill. POPE & ECKHARDT CO.

INSPECTION AT KANSAS CITY.

Editor American Elevator and Grain Trade: About a month ago your columns contained more or less comment about the Board of Trade Inspection Department, which was organized in July, and the committee having this department in charge assumes that your readers might be interested in some of the figures contained in the first month's report, issued by our chief inspector, Mr. A. R. Ware.

This department commenced inspecting cars on July 28th, after being somewhat hurriedly organized, at the behest of the Kansas grain dealers; and in view of the haste, our members are very well pleased with the first month's record. From July 28 to August 31 the department inspected 7,290 cars and resampled 2,129 cars. Of the 7,290 cars inspected, reinspections were called on only 202, and of the 202 cars, the grade was changed on 91.

On September 1 Mr. James Russell was taken into the department as an assistant inspector, and on the same day there was added to the equipment of this department an automobile, which will be employed chiefly in facilitating the quick handling of samples, so that all cars coming into Kansas City may be sampled, inspected and disposed of during the forenoon of the day on which the cars are manifested. Heretofore there has always been more or less trouble in this market on account of late delivery of samples during the rush season, and even with the help of an automobile it probably will not be possible to get every car sampled the day it arrives, because the freight yards in Kansas City are widely scattered and it has never been the custom of the railroads in this market to set aside certain tracks,

*The editor is indebted to Mr. J. W. Radford of Pope & Eckhardt Co., Chicago, for the above excerpt from a letter by Mr. McFarlin of the Des Moines Elevator Co., Des Moines, to J. Buchanan of Ames, on the improvement of crops in Iowa, which is here published by the author's permission. The author, Mr. McFarlin, had criticized the State College at Ames for negligence of wheat in Iowa, that brought forth a denial by Mr. Buchanan, who is Superintendent of Co-operation Experiments, which Mr. McFarlin accepts in proper spirit, and then continues as per the text herewith.

as is done in many other markets, for handling grain exclusively.

Yours truly,

G. A. AYLSWORTH,
Chairman.

Kansas City.

EFFICIENT SCALE INSPECTION SERVICE.

Editor American Elevator and Grain Trade: Our inspection and repair service has been in effect for two and one-half months and has been generally met with hearty encouragement.

I am enclosing a copy of a letter received from the Harter Milling Co., which is a sample of the comments made upon the service. Yours very truly,

THOS. P. RIDDLE,

Lima, Ohio. Sec'y H. & G. P. & S. Ass'n N. Onio.

FROM THE HARTER MILLING CO.

T. P. Riddle, Sec'y, etc.: Answering your letter of September 6th, we can truthfully say to you that the recent inspection of our scales at Fostoria by your inspector was by far the best inspection of scales that we have ever had. We are greatly pleased with the methods employed by your inspector and with the very thorough attention which he gave to each and every scale on our premises.

Should you at any time have occasion to refer to us, do not hesitate to do so, for we can give your inspection department the finest kind of a recommendation, and we can do it with the clearest conscience imaginable. Yours truly,

THE HARTER MILLING CO.,

Toledo, O.

L. A. Mennel, Vice-Pres.

PURE FOOD MEN AND GRAIN.

The appearance of pure food officials as arbiters of the quality and fate of grain in transit is adding complications to the normal difficulties of grain inspection. At first blush the activity of pure food inspectors, whether of state or nation, in seizing grain in its natural condition on charges of adulteration, misbranding and that sort of thing, looks like an assumption of responsibility not contemplated by law, or, at least, by the makers of the pure food laws. These were intended to protect humans from doctored foods; and raw grains can hardly be called foods.

Since Dr. Wiley was put out of the china shop little has been heard of this sort of action north of the Ohio River, until a few weeks ago Dr. S. J. Crumline of the Kansas Board of Health announced that the presence of half a pound of weed seeds and foreign matter in wheat would be deemed fraudulent adulteration and subject the grain to seizure. Since then he has accused Kansas grain dealers of deliberately sanding wheat (one car having been found at Topeka that contained 600 lbs.) and of doping new wheat—a Sterling shipper being accused of operating a "secret spout" in his elevator, through which "came spoiled or stack damaged grain, and it was mixed with the first class grain as it went into the car, the entire shipment being sold as first class wheat." [What about the inspector?]

In view of these atrocities in Kansas Dr. Crumline, as chairman of the committee on co-operation of the Association of State and National Food and Dairy Departments, has promulgated a circular, asking the members to co-operate in a general movement to prevent the "manipulation of grain." Dr. Crumline says the thrashermen are the guilty parties who "fix the separator screens so that the thrashed grain will include all or a considerable portion of weed seeds, for the purpose of increasing the weight, as the fee for thrashing is based on bushels by weight." The circular continues:

It has been experimentally demonstrated that a thrashing machine, properly equipped with screens and properly operated, can eliminate practically all of the foreign material ordinarily found in grain.

It has also been a matter of common knowledge among grain dealers and millers that many of the elevators and other grain dealers are in the habit of mixing sprouty or other deteriorated grains, after having been run through the machine for removing the sprouts, with good grain in just such quantities as would pass grade, and thus many carloads of inferior and deteriorated wheat have been bought at a low figure and mixed with higher grade grains.

All of this is in violation of the food and drugs law in defining "adulteration": First, under foods, if any substance has been mixed or packed with it so

as to reduce or lower and injuriously affect its quality or strength.

How many pure feed men elsewhere are taking Dr. Crumline's position does not appear, but at least H. E. Barnard, state food and drug commissioner of Indiana, tells the press that "every effort would be put forward by the deputies of the Indiana department in an effort to correct any such practice in Indiana in the future," there being very little thrashing now going on.

THE MARKETS BILL.

The Senate on August 21 passed the Smith bill to provide for a "Division of Markets" as a part of the Bureau of Statistics of the Agricultural Department. The bill provides substantially as follows:

Section 2. That the Chief of the Bureau of Statistics shall have power and authority to make, through the Division of Markets, under the direction of the Secretary of Agriculture, investigation as to the systems of marketing farm products, co-operative and otherwise, in practice in various sections of the United States and in foreign countries, and shall collect data in reference thereto. The information and data thus collected shall be distributed to farmers, farmers' organizations and societies of consumers throughout the various agricultural sections of the country, and made available for the use of any individuals or organizations, either by the circulation of printed bulletins and telegrams or by information given personally by special agents of said bureau.

It shall also be the duty of the Chief of the Bureau of Statistics to make through the said Division of Markets, and under the direction of the Secretary of Agriculture, investigation of demand for farm products in various trade centers and the current movement of such products, giving specific data as to the supply, normal demand and the price thereof, with the view of furnishing information as to the best available markets, which information shall be distributed under the direction of the Secretary of Agriculture.

Section 3. That it shall be the duty of the Chief of the Bureau of Statistics to collect, through the said Division of Markets, by any expeditious method, as by telegraph, telephone, mail or otherwise, complete and report to farmers, farmers' organizations and societies of consumers daily bulletins or telegraphic reports of such information and statistics as will enable them to adopt plans of marketing that may facilitate the handling of farm products at a minimum cost; provided, that when such reports or statistics are requested to be furnished by telegraph or telephone, or methods other than the United States mail, the person or association making such request must advance the fee for the cost of transmission, which shall be deposited to the appropriation for the maintenance of said Division of Markets.

It shall be the duty of the Secretary of Agriculture to make an annual report to Congress regarding the work of said Division of Markets, with any recommendations that may enable Congress to enact any additional necessary legislation.

When the bill reached the House, Chairman John Lamb of the committee on agriculture, to whom it was referred, pocketed it, intimating that the bill was useless—there was no need of a "Division of Markets," since the Bureau of Statistics is now equipped for making the investigations called for without creating a new nest of employees or providing more money. At any rate, two similar bills have been pending before the House committee on interstate and foreign commerce and hearings thereon have been held; and the Smith bill is apparently likely to have trouble hereafter.

WESTERN SCALE TESTER.

A telegram from Olympia, Wash., of August 31 says that the states of "Oregon and Washington have a partnership interest in a half-sized steel boxcar loaded with 70,000 pounds of junk iron. It is the railway scale-testing car operated under the control of the Railroad Commission of Oregon and the Public Service Commission of Washington. George H. Kaiser, of Portland, who has taken the oath of both states to perform the duties of scale expert, has just completed the first inspection trip over both states, and of the twenty track scales in Oregon and the seventy-two in Washington, he says he found but one in each state which did not require adjustment.

"His report of the Washington inspection, filed with the Public Service Commission on August 31, details that forty-one scales were found underweight, or favoring the shipper, and thirty overweight, or favoring the railroads. The scale-testing car was built at the South Tacoma shops of the

Northern Pacific under Mr. Kaiser's direction, at a cost of \$2,319. Oregon paid half and the railway companies owning scales in Washington the balance on an apportionment plan. The total weight of the car is 103,400 pounds. Inspector Kaiser has had twenty-five years' experience in scale work, residing in Portland during the entire period."

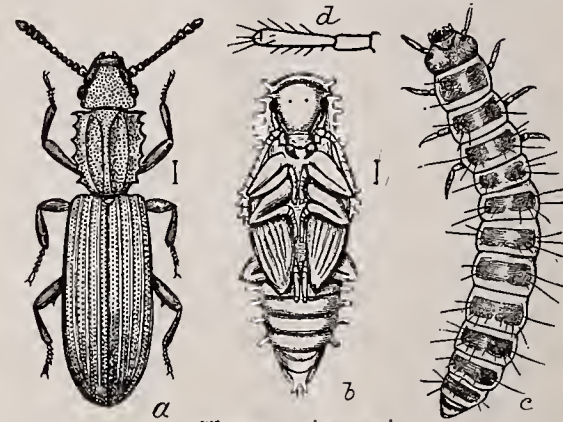
BUNCO MAN IN THE SOUTHWEST.

On August 24 one John W. Robinson and I. V. L. Ennis were arrested charged with fraud. It is charged that the men negotiated many carloads of broom corn from farmers about Guymon and Texahoma, Okla., and failed to turn over the proceeds.

Robertson, the farmers allege, organized at Kansas City a company known as the Detroit Broom Corn Company and proceeded to find a market for the many carloads of stock on hand. One carload was sold in Kansas City and the balance was disposed of in Cincinnati. The net "cleanup" was about \$10,000. Ennis's connection with the deal was not at first apparent but evidence produced since the farmers called in the services of the Government caused the arrest of both. Inspector Sharton arrested Robertson in Kansas City, Kan., August 24. Examination was waived and Robertson held under \$2,500 bond, in default of which he has been brought to Kansas City and committed to jail. Ennis, after his arrest at Guymon, also waived examination and has been released on \$2,500 bond. The case will come before the United States district court about November 4.

A DESTRUCTIVE GRAIN INSECT.

This is the season of the year when insects affecting stored grain are most in evidence and complaints of serious damage have reached us from several sections during the past month. One of the most destructive pests in mills and elevators is the Saw-Toothed Grain Beetle (*Silvanus surinamensis*), which is distributed over a wide latitude and is



SAW-TOOTHED GRAIN BEETLE—*Silvanus surinamensis*.

a, adult beetle; b, pupa; c, larva, all enlarged; d, antenna of larva, still more enlarged.—After Chittenden.

apparently becoming a more serious menace each year.

It is a small, dark brown insect, about one-fourth of an inch long, slender in shape and much flattened above. It has six saw-like teeth on each side of the prothorax. In almost every instance the presence of this pest is discovered by the heating of the grain, which feels hot to the touch even in the hottest days in summer. This heating is evidently due to fermentation caused by the excrement of the insects mingled with the fine, dust-like fragments of the grain which they have nibbled off. Both the beetle and the larvæ—an active grub—bite fragments off the grain and damage much more than they consume. Breeding goes on rapidly during the summer months, as many as six generations having been observed in a single season, and consequently the number of beetles and grubs may become enormous before cold weather sets in.

As evidence of the widespread distribution of this insect, it is announced that during the past summer it was found in many places in Canada, an unusual fact being its appearance in barns on isolated farms.

CROP REPORTS

Japan has a rice crop of 275,000,000 bus.

The Labor Commissioner of Nebraska puts the corn acreage at 6,076,057, or 141,978 less than in 1912.

Production of hay is estimated at 72,000,000, against 73,000,000 estimated last month, and 55,000,000 in 1911.

Illinois wheat (winter and spring) crop smallest since 1880; total yield 6,315,205 bus., against 22,722,216 in 1911.

In spite of unsettled weather, at September 5 apparently 75 per cent of the Canadian spring wheat crop had been cut.

Snow's Sept. 1 report gives corn a condition of 81.5, and yield of 2,925,000,000 bus. Winter wheat acreage 15.4 bus.; spring wheat condition at harvest 90.6.

Wells of Iowa estimated, Aug. 25, corn in Iowa, 348,710,000 bus.; oats, 207,000,000; winter wheat, 7,393,000; barley, 15,984,000—all large increases over 1911.

Oklahoma official report: Average yield of corn, 19.9 bus.; growing condition for August, 65.6; cowpeas, 71.9; kafir corn, 85.4; milo maize, 83.4; broom corn, 82.2; spring sown alfalfa, 64.3; fall sown, 73.4.

The Ohio Hay Shippers' Association was organized at Lima on September 5. Officers were elected as follows: President, S. W. McMillan of Van Wert; vice president, C. S. Kemp, Spencerville; secretary and treasurer, E. A. Young, Shelby.

Michigan state September state report makes corn condition 73, against 70 last month and 83 year ago. Wheat yield per acre 10 bushels; quality 73, year ago 87. Oat yield 32, last September 27; quality 84, year ago 85. Rye yield 13, year ago 14. Clover seed compared to an average 79, against 64 year ago. Beans 78, same as year ago.

Missouri official for September: Corn condition 86.8, against 84 in August and 71 last September. Some new corn now being fed. Within a week most of the corn in the state will be enough matured for feeding purposes. Cutting later than usual and indications are that comparatively little corn will be cut. Wheat ground plowed only 44 per cent, due to dry weather. Indications are only 91 per cent as much ground will be seeded to wheat as last fall.

Ontario Bureau of Industries gives the following probable yields in that province: Fall wheat—759,888 acres, 14,688,495 bushels. Spring wheat—123,080 acres, 2,310,571 bushels. Barley—647,382 acres, 18,938,489 bushels. Oats—2,601,735 acres, 96,115,119 bushels or 36.9 per acre. Rye—105,949 acres, 1,861,575 bushels, or 17.6 per acre. Peas—221,524 acres, 4,108,883 bushels, or 17.6 per acre. Beans—69,703 acres, 1,203,420 bushels, or 17.3 per acre. Hay and clover—3,177,410 acres, 4,760,502 tons, or 1.50 tons per acre. The acreage in other crops for which no estimates as to yield have been made at this date are as follows: Buckwheat, 205,893; corn for husking, 301,251; corn for silo, 377,982.

An oat crop of 1,400,000,000 bus., compared with 922,000,000 bus. harvested last year, is shown by Goodman for Clement, Curtis & Co., four-fifths of which gave thrashing returns. Thrashing has been delayed by rains, and a very small amount is reported as lost. In the Central states the grain is damp and stained and quality on the whole will be below the average. Iowa has a crop of 220,000,000 bus., Illinois 160,000,000 bus., Wisconsin 100,000,000 bus., Ohio 90,000,000 bus. and Indiana 85,000,000 bus., a total of 655,000,000 bus. for the five states, against 417,000,000 bus. harvested last year.

The International Institute of Agriculture gives the following estimates of foreign crops: Wheat—Prussia, 90,472,000 bushels; Russia (73 governments), 749,947,000; Bulgaria, 63,750,000; Canada, 187,927,000; Egypt, 28,948,000. Corn—Spain, 25,984,000 bushels; Russia, 61,908,000; Egypt, 76,448,000. Rye—Prussia, 346,444,000 bushels; Russia, 984,728,000; Bulgaria, 12,400,000; Belgium, 22,518,000; Denmark, 18,038,000 bushels. Barley—Prussia, 81,125,000 bushels; Russia, 458,183,000; Bulgaria, 18,373,000; Canada, 32,520,000; Egypt, 10,845,000; Denmark, 25,655,000. Oats—Prussia, 387,444,000 bushels; Russia, 1,032,605,000; Canada, 340,022,000; Denmark, 52,468,000; Hungary, 87,549,000. Rice—Spain, 8,564,000 bushels; Egypt, 14,500,000.

"Prolonged wet weather during the harvesting season in the United Kingdom has culminated in a disastrous condition to the crop as regards yield and quality," said Broomhall in a special international wheat review, as cabled to Harris, Winthrop & Co. August 29. "This situation will materially affect the general markets throughout the world, although the British crop is relatively insignificant, yet the markets will be sentimentally influenced by the extra demand, which I estimate will aggregate 16,000,000 bus. in excess of my earlier forecast. Weather in northwestern Europe has been nearly as bad as in the United Kingdom and the demand from Europe is expected to be much larger than last

year. Mediterranean importers are much larger buyers this season and therefore the aggregate demand, including Europe and ex-Europe, will be unusually heavy. The whole problem is the quality of the new crop, as an ample amount has been raised for consumption. Russian reports indicate a crop below expectations, notwithstanding extreme estimates of 750,000,000 bus. This estimate, if true, with the indicated large crop in the United States and Canada, should furnish plenty of material for importers' requirements, but the United States and Canada will be heavily drawn upon. Experience of former years proves that a broad, active import demand always causes a firm market, even though supplies are liberal, and I see no reason to think that this season will prove an exception, especially in view of the high freight rates and the world's good trade outlook."

THE CROP REPORT.

The September crop report interpreted in bushels was as follows:

Grain—	Bushels.	Gain over 1911.
Corn	2,995,000,000	464,000,000
Winter wheat.....	390,000,000	*40,000,000
Spring wheat.....	300,000,000	169,000,000
Total wheat.....	690,000,000	69,000,000
Oats	1,290,000,000	368,000,000
Barley	209,000,000	49,000,000
Rye	35,000,000	2,000,000
Total grains.....	5,219,000,000	949,000,000
Flaxseed	23,000,000	Unchanged
Buckwheat	18,000,000	Unchanged
Rice	23,000,000	Unchanged
Hay, tons.....	72,000,000	17,000,000

*Decrease.

The spring wheat crop in the Northwest totals 231,760,000 bus., or almost 100,000,000 bus. in excess of last year and over 82,000,000 bus. more than in 1910. Details follow:

State—	Estimated. Sept. 1, 1912.	1911.	1910.
Minnesota ..	63,722,000	43,935,000	64,000,000
North Dakota	118,088,000	73,200,000	38,500,000
South Dakota	49,950,000	14,800,000	46,720,000

Total, bu.	231,760,000	131,935,000	149,220,000
U. S. total, bu.	300,000,000	190,682,000	200,979,000

The seven surplus corn states have a crop of 1,779,000,000 bus., or 340,000,000 bus. more than harvested last year and 93,000,000 bus. in excess of two years ago. The total crop of the country is 2,995,000,000 bus., or 464,000,000 bus. more than last year. Illinois has 54,000,000 bus. more than last year. Iowa 79,000,000 bus., Nebraska 61,000,000 bus., Kansas 76,000,000 bus. and Missouri 50,000,000 bus., the last three states being materially cut down last year by drought. Production in the seven surplus states with comparisons follow:

State—	Estimated. Sept. 1, 1912.	1911.	1910.
Ohio	160,000,000	150,540,000	144,540,000
Indiana	183,000,000	174,600,000	188,640,000
Illinois	389,000,000	334,950,000	400,775,000
Iowa	384,000,000	305,350,000	343,761,000
Nebraska	216,000,000	155,925,000	191,565,000
Kansas	205,000,000	126,150,000	170,050,000
Missouri	242,000,000	192,400,000	247,500,000

Totals, bu.	1,779,000,000	1,439,915,000	1,686,831,000
U. S. t's, bu.	2,995,000,000	2,531,488,000	2,886,260,000

Oats attained a new record, the crop being estimated at 1,290,000,000 bu. or 368,000,000 bu. larger than last year, and 104,000,000 bu. in excess of the big crop of 1910. Iowa has a crop 58,000,000 bu. in excess of last year, but 4,000,000 bu. less than in 1910, and Illinois shows a gain of 44,000,000 bu. over last year, while Minnesota gained 36,000,000 bu. and has the third largest crop of any state. The twelve states of largest production have a crop 312,000,000 bu. in excess of last year and 91,000,000 bu. more than two years ago. Comparisons in important states follow:

State—	Estimated. Sept. 1, 1912.	1911.	1910.
Iowa	184,600,000	126,225,000	192,780,000
Illinois	165,400,000	121,536,000	164,350,000
Ohio	82,400,000	54,570,000	65,844,000
Indiana	74,300,000	47,068,000	59,472,000
Kansas	51,800,000	30,000,000	55,778,000
Nebraska	59,800,000	34,750,000	70,896,000
Minnesota	103,200,000	67,214,000	85,440,000
N. Dakota	76,500,000	51,230,000	15,155,000
S. Dakota	45,900,000	11,396,000	35,650,000
New York	34,100,000	38,645,000	45,540,000
Pennsylvania ..	33,500,000	31,724,000	40,269,000
Wisconsin	81,800,000	67,050,000	71,336,000

Totals, bu.	993,300,000	681,408,000	902,510,000
U. S. t's, bu.	1,290,000,000	922,298,000	1,186,341,000

On other products the Government estimates are as follows:

Rice—Condition, 88.8; yield, 32.7; production, 23,000,000. August condition, 86.3; a year ago, 87.9.

Flax—Condition, 86.3; yield, 9.7; production, 29,000,000. August condition, 87.5; a year ago, 68.4.

White Potatoes—Condition, 87.2; yield, 108; pro-

duction, 398,000,000. In August condition, 87.8; a year ago, 59.8.

Buckwheat—Condition, 91.6; yield, 21.3; production, 18,000,000. In August condition was 88.4; a year ago, 83.8.

Barley—Condition, 88.9; yield, 27.6; production, 209,000,000. In August condition was 89.1; a year ago, 65.5; ten-year average, 81.2.

Hay—Preliminary estimate of total production, 72,000,000 tons; quality, 92.1. August estimate, 73,000,000 tons. Last year's output, 55,000,000 tons.

THE WORLD'S GRAIN SUPPLY.

The August number of the "Bulletin of Agricultural Statistics," published by the International Institute of Agriculture, arrived on September 6. A cabled summary of the calculations of the world's crops contained in it has already appeared, but additional extracts, however, will be of interest.

The "Bulletin" contains four tables showing preliminary estimates of the production of wheat, rye, barley and oats from all countries from which estimates had been received up to the time of publication. A telegram from the International Institute, subsequently received, has supplied estimates for Russia, which do not appear in the "Bulletin."

The total estimates for wheat amounts to 1,472 million cwts., or 106.7 per cent of last year's production, the countries considered being Prussia, Belgium, Bulgaria, Denmark, Spain, England and Wales, Hungary, Italy, Luxembourg, Russia (73 governments), Switzerland, Canada, United States, India, Japan, Egypt and Tunis. In the principal countries the crops compare as follows with those of 1911: Spain 60,207,000 cwts., 79,529,000 cwts. in 1911; Hungary 98,330,000, 101,811,000; Italy 92,702,000, 103,041,000; Canada 100,646,000, 115,604,000; United States, 390,000,000, 300,000,000; India 196,514,000, 200,753,000. The estimated production in Russia, 73 governments, is 401,757,000 cwts., 272,943,000.

The production of rye is estimated at 757 millions, or 118.4 per cent of last year's production. The countries included in the estimate are Prussia, Belgium, Bulgaria, Denmark, Spain, Hungary, Italy, Luxembourg, Russia, Switzerland, Canada, United States, Algeria. The estimated production in Russia (73 governments) is 492,362,000 cwts.

The estimated production of barley is 481,000,000 cwts., or 104 per cent of last year's production in Prussia, Belgium, Bulgaria, Denmark, Spain, England and Wales, Hungary, Italy, Luxembourg, Russia (73 governments), Switzerland, Canada, United States, Japan, Egypt and Tunis. The estimated production in Russia (73 governments) is 196,364,000 cwts.

The production of oats is estimated at 951 million cwts., i. e., 114.1 per cent of last year's production in Prussia, Belgium, Bulgaria, Denmark, Spain, England and Wales, Hungary, Italy, Luxembourg, Russia, 73 governments; Switzerland, Canada, United States, Japan, Algeria and Tunis. The estimated production in Russia, 73 governments, is 295,030,000 cwts.

Estimates are, however, still missing for a few important countries, says the "Bulletin." The percentage given above may, therefore, require revision when estimates for these countries are received.

In the two tables which are given showing the area and production of maize and rice this year's production in the United States is estimated for these two crops respectively at 1,405,093,000 cwts. (111 per cent of last year's production) and 9,239,000 cwts. (100.3 per cent), and in Egypt at 38,212,000 cwts. (112.6 per cent) and 5,825,000 (76.9 per cent), respectively. The estimated production of maize in Russia, 73 governments, is 30,954,000 cwts. Short reports as to the progress of the crops in a number of countries follow the tables.

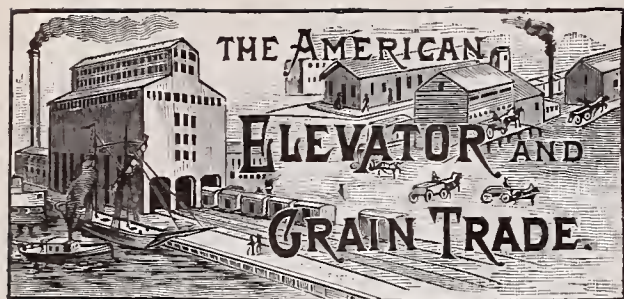
The "Bulletin" also contains five other tables showing the area, crop condition and for a few countries, a preliminary harvest estimate for flax, sugar beet, vineyards, tobacco and cotton. Among others the production of linseed in the United States is given as 13,995,000 cwts. (144.6 per cent of last year's production), the production of cotton in Egypt as 7,534,358 cwt. (133 per cent), the production of grapes in Spain as 47,453,348 cwts. (89.5 per cent), and the production of tobacco in the United States as 8,747,483 cwts. (108.3 per cent).—Journal of Commerce.

The Fort Worth grain inspections for July and August were about 3,500 cars, breaking past records.

Toledo's first car of new rye arrived on August 15 from Indiana. It graded No. 2, 57 lbs., and sold at 70c.

A. M. Enney has resigned his position as manager of the Hunting Elevator Co. at Hawkeye, Iowa, to accept a similar position with the National Elevator Co. at Kompton, N. D.

Gov. Eberhart has named September 16 to 21 as seed corn week for Minnesota, and recommended that each farmer in the state appoint a day or days during the week to select seed for his grain for the following year.



Published on the Fifteenth of Each Month

BY

Mitchell Brothers Publishing Co.

OFFICE:

Manhattan Building, 431 South Dearborn Street
CHICAGO, ILL.

HARLEY B. MITCHELL Editor
A. J. MITCHELL Business Manager

Subscription Price, - - - - \$1.00 per Year
English and Foreign Subscription, - 1.75 " "

ADVERTISING.

This paper has a large circulation among the elevator men and grain dealers of the country, and is the best medium in the United States for reaching persons connected with this trade. Advertising rates made known upon applications.

CORRESPONDENCE.

We solicit correspondence upon all topics of interest connected with the handling of grain or cognate subjects.

CHICAGO, SEPTEMBER 15, 1912.

Official Paper of the Grain Dealers' National Association
and of the Illinois Grain Dealers' Association.

THE CREDIT BUREAU.

The idea of a credit bureau as one of the functions of the Council of Grain Exchanges is gaining friends, but the difficulties in the way are not to be disguised. At least, the effort of the Liverpool Cotton Bills of Lading Conference Committee to secure credit information concerning Southern cotton shippers has been regarded with keen interest by American bankers. The agent of the Liverpool Committee in New York, who presumably would collect the information, doubtless finds that while an entirely safe remedy for bill of lading irregularities would be judgment in the selection of shippers, the real question is, who are the reliable shippers? Banks and trust companies handling bills of lading are reluctant to part with their own information on the subject, collected with extreme difficulty and some unhappy experience, perhaps; besides the volume of information is added to daily, and still it is never complete.

Doubtless much the same difficulty would be encountered in compiling information concerning queer men in the grain business, the crooks being more easily identified after the fact than before. This would be especially true of men doing business on the speculative side of the market, but as even a "rogues' gallery" of portraits and thumb marks is of indispensable worth to the police, so too a record of the crooks and defaulters in the grain trade, systematically kept and promptly communicated to be other exchanges, would be useful and might limit a crook's operations to a single effort. Recent experiences at Chicago with queer drafts from the West, when the warning was passed around among receivers promptly, led to

the exposure of fraudulent devices and even to the arrest of at least one man engaged in a bold attempt at robbery through false bills of lading.

LIMITING SPECULATION.

Mr. Breed's suggestion *apropos* speculation in the grain exchanges is, of course, well meant; but as it involves the concession that speculation on 'change, even on margins, is morally wrong, or, at least, ethically questionable, one can only "deny the allegation and defy the alligator." In matters of this sort, this is not the time to volunteer any compromise. The much better part would be an effort to educate the public to something like self-control. We are living in a time of political, social and economic hysteria, when a large part of the people have ceased to think sanely and another larger part have become afraid to think at all, apparently, on economic problems. The consequence is that demagogues, sentimentalists and militant incompetents are dictating our personal and business habits and making our laws. It may be, as Mr. Breed thinks, that the end of speculation and trading in futures, for delivery or on margins, is near at hand; but we don't believe it. At any rate, there is no use in "laying down" before the end comes. The exchanges themselves having practically eliminated all the alleged objectionable features of trading in futures, the struggle for continued freedom of trading is now one of quite as much consequence to the public, producers and consumers, as to the exchanges, and the latter should stand firmly for their existing rights. Specifically, to reply to Mr. Breed, it is not anomalous to trade in grain for the far future deliveries, any more than it is for a land owner to contract for the steel for a building to be erected on delivery of the material, a year or more hence, as is the case when the modern skyscraper is erected under the most favorable investment conditions.

NORFOLK CONVENTION.

The Grain Dealers' National Association has certain business to do at Norfolk, Va., on October 1, 2 and 3, such as providing for the succession of officers, acting on official and committee reports and formulating such associational legislation as may be recommended by the directory or by members as needed or advisable. These matters ought to be and indeed are of sufficient moment to lead serious men in the trade to Norfolk to see that they are disposed of properly.

But at Norfolk it will not be necessary to be too serious all of the time. Norfolk is a city of many attractions. Take your map and see what there is round about: Hampton Roads, where the waters of the James, the York, the Rappahannock and the Potomac meet those of the Elizabeth and the Chesapeake as they roll on to the sea, a roadstead teeming with life and beauty, whose shores are crowded with charming suburbs, making a picture of land and waterscape as beautiful as New York Bay. Every wave and point of land from Fortress Monroe and Capes Henry and Charles to the James, bristle with historic memories; yet here is now the home of the "white-winged angel" of peace, concord and tranquillity. Norfolk is an old

Southern colonial city, still having its venerable homes and gardens where fig-trees and oleanders struggle for existence with rose vines—where in some of her narrow streets one still may sense, amid the liveliest and most intense twentieth century surroundings, some of the rare flavor of the south of England in the days of the Cavaliers and Roundheads.

Or shall we descent to the carnal, and while lamenting that the late Jimmy Jones and his restaurant in Main street are no more, believe that he has his successors? It is not so much the fact that Jimmy Jones could recognize by taste alone an oyster from any environ of Norfolk—Lynnhaven, Cherry Stone, Mobjack, Smith Creek, Little Bay, Broad Creek, Ware River, Linkham Bay and so on to the end of the list—that interests us now, Jimmy having been called to his Hellenic fathers, as the fact that at Norfolk one may line his "tummy" with strange delights and live to boast of it in ripper years when gustatory emotions shall be more memory than substance. Do not think these be inconsequential things; for when we sum up the joys of hospitality and the accomplishments of a week of convention work, it is always a surprise to the knowing to realize how much has depended on the "eats," always the standard and gauge of modern civilization; and it is no joke that a man is always more amenable to reason, more congenial, more friendly, more approachable with a difficult or irritating subject after he has dined well. And in this respect Norfolk is—"different."

A CURE FOR MISUNDERSTANDINGS.

There is a certain sort of grain shipper for whom nothing is quite rightly done in the receiving markets—who thinks habitually of the entire machinery of the exchanges as something devised and operated for the sole benefit of the buyers of the grain. As a rule this class of shippers really has but an uncertain idea of what takes place after a car of grain leaves the elevator. Probably the most of them think, in fact, that after it has been loaded and bill of lading forwarded, the future destiny of the grain is of little moment to themselves, not appreciating that grain sold to arrive is not delivered when loaded, but only when grade and weight are ascertained at destination. Fewer still appreciate the fact that a track sale contract is affected by the rules of the market whose "terms" are mentioned in the card bid. Men enter into contracts to sell on track certain grain on any given market's terms without, in fact, understanding what those terms are; nevertheless they find fault and impute bad faith when later on something happens to develop the fact that the character of the contract was different from what they thought it meant, or what in their view it ought to mean. Now no one is to blame for this other than the shippers themselves, who should know exactly what the contract is that they have entered into when they telegraph acceptances and sell on the basis of the terms which the card before them refers to in the baldest manner—a mere hint, in fact, of the truth, yet broad enough to constitute a definite contract, in which the buyers' rights are protected as are those of the seller himself. The apparent inequity of the contract lies in

the fact that the buyer usually understands his rights better than the shipper understands them, rather than in any direct terms of the contract that are *per se* unfair to the seller. Shippers would save themselves from "many a foolish notion" if they would familiarize themselves with the exact meaning of the various forms of card-bid contracts they enter into when selling on track to any one or more markets.

PURE FOOD MEN MEDDLING.

Is not this activity of Dr. Crumline of the Kansas State Board of Health in dictating what kind of raw wheat shall or shall not move in trade and commerce in that state, and his appeal to other state food law officials to take a hand in the same game in their states, rather exceeding a rational interpretation of state food laws? Raw grain is not food; it is only the raw material out of which foods are made; even feeds are more or less manufactured commodities. It may be true that it would be desirable to force farmers to keep weed seeds at home, but as they will not do so, it is an arbitrary assumption of responsibility for a food inspector to seize as adulterated grain containing removable natural impurities (or even "dopy" mixtures), that will be properly penalized by the official grain inspectors and which, in any event, will, before being made into food or feeds, find its proper place and sell for what it is worth and no more. A food inspector is a pretty incompetent man who does not know that weed seeds, etc., do not find their way into foods or feeds, being removed by the miller, and that the miller is not deceived into buying them in wheat for other than what they are. Why this intense desire to "butt in" in order to protect some one who knows enough to protect himself? Besides, this conflict of authority in passing on the quality of parcels of grain is disorganizing to business. The situation is such that it must eventuate in either the grain inspectors or the less competent food inspectors being forced to the wall; it will be impossible to do business with two sets of inspectors slashing at the grain and one of them confessedly impracticable to start with.

THE CAR PROBLEM.

Mr. Foss recently epitomized the transportation problem in a brief statement to the effect that in the last analysis railroading is a question of the men. The manager may propose, but the men dispose. It is what the men on the engine and in the caboose do that means good or bad service to shippers. Railroad hands are better looked after today by both their employers and the laws than ever before, yet it is not far from the truth to say that the interest of the men in bettering the service by their own personal activities is not proportionally increased. As Mr. Fagan says in the *Atlantic* for September, "Just as soon as business and political interests began to move in behalf of the railroad employee and took notice of his rising importance, his industrial integrity was endangered." The question of the quality of his service as a *quid pro quo* has largely ceased to interest him. If the train crews choose to handle cars in the country and in the terminal yards as they should be handled, well and good;

otherwise the shipper and receiver alike may swear, but the general manager is in a not much more definite situation than they, as his control over men is largely nominal. Mr. Fagan's "Conductor Breakers," who used to enjoy a flood of donations of all sorts ("in the old days") from those to whom he vouchsafed "priority of service and other favors," has not entirely disappeared even now, nor has the subsidizing of train crews in the country become wholly "bygone history." The "16-hour law," too, is a convenient cloak for neglect of switching and pick-up duty that trainmen scarcely deny; for when, as Sairy Gamp used to say, they are "so disposed," they decline to do necessary switching or to pick up loaded cars on the score of lack of time.

The car problem is not going to be solved by managerial hints to shippers, willing as shippers may be to act upon them. There are doubtless cars enough to handle the country's commerce, but to do it the cars must move more than twenty-four miles a day each as an average. It is the trainmen who move the cars, not the shippers nor the general manager. The receiver can be penalized in cash for not releasing cars, as can shippers for not loading promptly; but can the crews be disciplined for not moving them promptly when tendered loaded in the country or for transfer at the terminal?

BANKING LEGISLATION.

Although the Aldrich bill to reorganize the banking system of our country is considered dead in Congress, both because it was undeniably handicapped by its name and because interior bankers throughout the country on second thought are changing their minds about the bill, nevertheless it is beyond question that banking law reform is one of the most pressing questions of the hour. Not so much to obtain more money (for commercial nations will supply themselves with the money they need, law or no law), but to guarantee against collapse at crises our system of credit—"the greatest national currency," as W. H. Muench of Cincinnati called it at an address to the Nat'l Ass'n of Credit Men, who said:

In a country where the estimated total of wealth produced in a year is approximately \$30,000,000,000, or nearly ten times the entire circulation of the country, the impossibility of transacting even one year's production entirely with the currency of the realm is very apparent. When, however, we compare the circulation of the United States, as of Jan. 2, 1912 (\$3,267,000,000), with the bank clearings for the year ended Dec. 31, 1911 (\$160,000,000,000), the inadequacy of money and the absolute necessity for credits must be immediately recognized.

Yet nothing is so easily thrown into disorder as our system of banking credits by a financial crisis, for then the law steps in and completes the ruin of private credit by forcing through the reserve requirements its discontinuance at the very time it is most needed.

Grain men are peculiarly interested in this problem of banking reform, or should be, because so much of their business is transacted by means of banking facilities. Therefore any action of Congress that will have a tendency to remove the cause of financial panics (known only in this country, as the result of a cessation

of banking credits) would be a permanent benefit to them; because the amount of cash and credit needed during certain months to move the crops is enormous, and any interruption of their normal flow means a dam in the current of commerce. Grain men ought to lend their influence, therefore, to prevent the threatened breakdown in the reform movement, under the hammering of the politicians in Congress and "currency doctors" in the country.

LOADING WEIGHT CERTIFICATES.

The shipper's weight certificate discussed by the Association of Officers of State Grain Associations and printed in these columns in the August number, has the endorsement of railway men and receivers and has much to commend it. Legally speaking, it would in no case be a finality; but in any case it would be evidence in favor of the shipper and it would be of value to the consignee of the shipment as an indication of the weight of grain loaded into a car. In Minnesota the law requires the shipper to post inside the car the loaded weight or be estopped from challenging the reported unloading weight. The certificate would be, as was said to the officers named, a decided step toward accuracy in weighing in the country where accuracy is most needed.

It would also have its influence for stopping false billing. There is little under-billing of grain for obvious reasons; but there is some over-billing by men who guarantee weights at outturn, by adding to the billed weight such percentage of the actual weight as they deem necessary to protect them and put in claims for any supposititious shrinkage. The carriers have not been active before the Commerce Commission in making complaints against shippers; but there is no reason in law for their not doing so, were they so disposed. *Prima facie* a certificate of the kind made at the time of loading would do much to give the carrier confidence in the good faith of the shipper, and that would be half the battle in the event that it became necessary to press a claim for loss.

The only serious objection to the certificate is that it might be a violation of Secs. 24 and 25 (*re* shipper's load and count) of the Pomerene bill; but we hardly think so, since the agent may sign the certificate as well as the B/L. There is no provision of the bill to make the posting of the certificate in the car unlawful; rather, one would think it would be an advantage all around to have it done.

THE SOLE OBJECTION.

The only objection heard to the Pomerene bill is that urged against Sec. 37—"that a person who negotiates or transfers for value a lading by indorsement or delivery, unless a contrary intention appears, warrants that the bill as genuine," etc.—that it throws too much responsibility on the banks. But by the terms of the bill is not the carrier behind the bill, supposing it not to be a forged document, which, of course, must be ascertained by the bank, or holder? Besides that, the doctrine announced in *Landa vs. Lattin*, commonly followed by the courts, now holds the bank responsible for the stuff when it handles the lading.

EDITORIAL MENTION

Lake and ocean bottoms are getting to be nearly as scarce as good grain cars.

If anyone is satisfied with the new transit rules, he might stand up and look at himself as a curio.

Northwestern Ohio and northern Indiana are said to be afflicted with scoopers, and yet there is no claim of inadequate elevator facilities.

St. Louis, with wheat receipts in August in excess of 8,288,000 bushels, is "feeling her wheat," these figures beating all previous records for the market.

Canada is probably not harvesting as much wheat as was cut a year ago, but there will be enough of it to crowd her carriers again and absorb all surplus lake craft that will carry grain.

The problem of what to do with wet grain has come early this year—buyers of wet wheat and oats everywhere now doing the worrying. It is a pity elevator men do not put up more good driers, where the public could be served by them.

Of course, it is understood that if we get national inspection of grain, etc., the whole system would automatically stop in the busy season if it should so happen that Congress should delay or neglect to make an appropriation for the work.

Country dealers in August were accused of being more ready to sell old corn than they were [able] to deliver it. With the stock of idle cars now reduced to a cipher, defaults are likely to be more numerous in the future, and they may be more costly.

Of course, grain men are not the only shippers who may need cars this fall and winter, because there are the fruits and vegetables shippers who say they will have 425,000 more carloads to move this year than last. The crop of potatoes alone represents an increase of over 35,000,000 bbls., and of apples 20,000,000 bbls. Think of it.

The U. S. Circuit Court of Appeals has reversed the decision of the trial court in the Hall-Baker case. The grounds for the reversal are only vaguely understood, since the court's decision had not been filed on our last information from Kansas City. We hope to obtain a copy as soon as it is filed, about the 15th inst., it is understood, and to discuss the case later.

Retaliation is rarely a successful mode of commercial warfare; but if on principle it were justifiable, it might be as applied by Sec'y MacVeagh to German cereal products. Even the Germans of sane minds admit that that country's "certificate system" is a sneaking subterfuge to pay a bounty on exports in the face of a profession that bounties are not paid; and Sec'y MacVeagh's recognition of the fact that indirectly and under cover a bounty is actually paid

may force Germany into the open—to throw off its disguises and "play the game squarely," both as to competitors and to home consumers.

The farmers of Kansas have begun a fight on the Board of Health ruling that half a pound of weed seeds per bushel of wheat is an unlawful adulteration. It is a ridiculous assumption. The pure food crank seems to be in the saddle these days, and is rapidly bringing all pure food laws into disrepute by the unreasonableness of their construction and execution.

The idle car surplus dropped from 43,901 on August 15 to 9,750 on August 29, the lowest level since March 13 (3,043) and February 28 (7,842), two fortnight records that were unusual for some reason. As the crop movement is now on the shortage is bound to be accentuated; and it behooves grain men to be mighty careful with sales to arrive—better trust to consignments.

It is easy to get a false perspective. For example, the new *Country Gentlemen* says: "The great questions now before the country relate to land, to markets, and to other things relating to the farmer's condition." On the contrary, the great questions are those involved in what the "man in the street" is going to do to both town and country. And in the midst of this urban uproar, it is no easy matter for common people to keep on thinking sanely.

The report of the committee on bills of lading to the American Bankers' Association at Detroit, was an unqualified approval of the Pomerene bill as one that meets the views of both bankers and shippers; and it urges every member of that association to do all in his power to push the bill through the House. Would it be impertinent to suggest that the Grain Dealers' National Association should do the same, as a further offset to the influences the railroads are still exerting against the bill?

Senator Smith of South Carolina has added to his laurels achieved by working his anti-cotton-futures bill through the Senate by pushing his "division of markets" bill through the same body. It aimed to create another bureau that would undertake to deal out market quotations to any farmer who would pay the telegraph charges from Washington! Ye gods! Fortunately, when the bill was sent over to the House it was referred to Lamb's committee on agriculture, who will probably wear it out totting it around in lieu of a public funeral.

There is not probably the same need in this country for better agriculture, great as it may seem to be, that there was in Ireland a decade ago; but it is encouraging to those engaged in propagating the "new agriculture" and to those who fear the social effect of a continued exodus from our own farms, to know that since the new era in Ireland, that has enabled Irish tenants to become land owners and to acquire some agricultural education, has been in practice, Ireland has become a changed land. The population is no longer dwindling, but crime is, as is also emigration. Everywhere there are signs of better living and of a more equitable distribution of the annual income of the peo-

ple, and dawning prosperity for the people if not the old landlords. And all this has followed directly in the wake of the new land laws and the Plunket system of agricultural education.

The free seeds distribution, now costing about a quarter million dollars a year, might be stopped if anywhere in the country there were any disposition to ask Congress to economize its expenditures, but there is none. Hence the absurdity is perpetuated of distributing seeds of the same character and origin from Maine to Texas, serving the one object only of making constituents think the Congressman has each one of them always on his mind; but he hasn't.

Mr. Patten's panacea for the high cost of living (a readjustment of American dietary to a cereal and sauerkraut basis) is as practical as the suggestion of Marie Antoinette to the populace of Versailles some time since, to eat cake if they were out of bread. Beans, peas, oatmeal and sauerkraut are doubtless things some Germans and Scotchmen think they must have, but Americans are not all blessed with the German digestion, don't you know, nor yet with the Scotchman's ability to stay outside of oatmeal 365 times (or oftener) per annum, in this climate, without achieving hives or the rickets.

The Nebraska farmer's complaint—and the complaint is made—that the experiment stations are no good because they do not pay expenses, is characteristic of the thinker in a mortise-box. It is not a fair objection, for some stations have paid expenses, although none is expected to do so. The stations are the experimenters, the seekers after truth. It is up to the farmer who accepts their discoveries to make their application to practical farming pay as a business. If he can't make science pay it is possible the fault may be in him rather than in science.

History seems to be repeating itself with unparalleled crops in America and rather meager ones in continental Europe. The great trade revivals of 1879 and 1897 began under that condition, and many now predict a similar immediate revival of trade. There is one difference, however. In '79 and '97 prices were low and there was room for the trade stimulation that always comes with rising prices. Now, however, prices are at the maximum, the buying power of the masses is somewhat suspended and there seems no room for a further advance, because the great mass of the people, the salaried class in particular, the always reliable consumers, can hardly pay more than they have been paying or spend money except for necessities. And yet the business activity of the Western world is unmistakable, in spite of these facts. England's foreign trade in August increased enormously, as did our own; ocean bottoms are scarce, and freights are advancing—are now nearly double normal rates, while most of the iron and steel plants are working almost to full capacity. Certainly as far as our cereals can bring back the long lost "Prosperity," the renaissance should come soon, borne back to us in the forms of remittances for our wheat and oats which are running out now in larger

streams than for many years past, to be followed later by corn and cotton, of both of which the heaviest crops in years in sight.

Kansas is repeating that old trick we used to hear of in the summer of 1907, of piling wheat on the ground, elevators being full and no cars.

Take your vacation this summer? No? Well, buy a ticket for Norfolk and leave home on the 29th. Oysters and fried chicken are ripe down there, with some other good things on the bill.

Southern Kentucky wheat growers, in a district that produces all told not much over 10,000 bushels, have decided that their wheat is worth just \$1.20 per bushel. So keep your eye on "Blue Spring."

The new hay grades of the National Hay Association, amended at Kansas City in July, appear on another page. The changes are not great; but they add a grade of prime timothy and light clover and entirely remake the rules for grading alfalfa.

The August fire loss in the U. S. was \$14,158,800, making a total of \$163,750,650 for the eight months of 1912—about \$4,000,000 less than in 1911, but about \$16,000,000 greater than in 1910. Is it any wonder that insurance rates are high and inspectors exacting?

The announcement is made that Sec'y J. F. Courcier of the National Association recently married Miss Ivy Queen Armitage, daughter of Mr. and Mrs. Chas. J. Armitage, at their home in Detroit, Mich. This journal unites with members of the trade in extending hearty congratulations.

Pembroke W. Pitt of Baltimore, maker of false bills of lading by means of which he obtained a lot of money from local banks, has been sentenced to the penitentiary for five years and some months, thus paying for his speculations at the rate of about \$60,000 a year, not counting "good time." This would seem to be a liberal estimate on the value of his services in the "pen" shirt factory as checking clerk. Yet some of his friends, who offered to make restitution if he received a "light" sentence, are somewhat disappointed, it would seem. The amount of sympathy publicly wasted on big defaulters is not quite conducive to healthy business morality.

"The Markets" department of country papers is a fruitful source of annoyance to grain dealers and of misinformation to farmers, for the reason that their city market quotations are rarely the "call" prices on which country prices are based, but the "contract" prices. Some effort has been made in certain localities to get the country papers to print the call prices as well as the contract prices, but so far few country papers do this. We believe this is because dealers have not taken personally the trouble to urge their own papers to do it, explaining succinctly the reason why they should do so. Country paper "markets" are usually quite perfunctorily prepared, yet most country editors, local reporters especially, are ready to be shown; and we believe that where

the trade do suffer, as in parts of Ohio and Indiana, from this source, it is largely due to their own negligence in not taking it up as a personal matter with the local papers.

The Saskatchewan Co-operative Elevator Co. to which the provincial government contributes about 85 per cent of the capital, had a good first year and made \$50,000. Out of this a 6 per cent dividend was promptly paid to the farmer stockholders and the remainder carried to "reserve" and "trading" funds. The government seems to have recovered nothing.

Those men whose particular panacea for the ills of humanity is the closing of the grain exchanges as "mere gambling houses" are respectfully referred to the statements of receipts of grain at the principal American markets and ask themselves the question, suppose these markets had been closed in July and August and no one permitted to buy or to sell grain for future delivery, who would have absorbed all this grain that the farmers have dumped on the market—who would have paid for it, or who would have scoured the country to find the men to take it, pay for it and carry it until the public—in this country or in Europe—should be ready to eat it? When some of these panacea makers answer the question to any reasonable man's satisfaction, there might be something else to be said on the phases of this perennial wonder of modern days—the way the 5,000 million bushels of grain and the millions of bales of hay and cotton of America are marketed, with every farmer getting spot cash for his crops whenever he wants to sell.

Howard H. Gross and the Soil Fertility League are to be congratulated on the progress of their pet measure, the Lever bill. We believe vocational education to be worth while as a part of, but not as the only education a child should receive: for no matter how low down in the scale of social life a child may be, he or she is entitled to some cultural teaching as the spark to stimulate the fire of that "sublime discontent" with present lot which will stir the ambition to be and to do something better than he is or may be doing. The material progress of mankind is based solely on the multiplication and endless succession of wants, and these are the outgrowth of a desire for something better—a higher standard of living which comes with the development of culture. But the weakness of our educational system has been that the teachers have overlooked pretty much everything but "culture" and ways of arriving at "culture" by short cuts—fads innumerable and inexpressible. The Lever-Page bill is something different, we take it, from what the League may have intended, but it is none the less welcome on that account; it may help to turn the schoolmaster from his besetting sin and may make vocational studies popular with the pupils and their parents if not with school teachers. As for the "old man" and the half-grown boys, on the farm but "out of school," "it's us" for the Crop Improvement Committee's county organization plan. That is self help—the best kind of help; it is community work that brings town and farm together; it is object lesson work—the best kind of teach-

ing for 90 per cent of the minds who must absorb technical instruction quickly; and any way more men get sounder working ideas from pictures than in any other way. But here's a hearty welcome to the hope expressed in the Lever bill and to all who believe in it and work for it.

The failure of the jury system as a reliable machine for the adjustment of commercial disputes, especially those growing out of simple trading operations, is one of the facts of business life. Mr. Ellison's article (p. 124) tells us why. It is because the quality of our jury-men has declined; and there seems to be no reason to expect anything different without a radical remaking of the laws directing the operation of the jury system. What, then, is the remedy? To what are merchants to look for the proper adjustment of inevitable differences? Manifestly, if we are to resort to the courts only, we must fall back on the judges, as litigants do who are in the chancery, or equity, side of the courts. Mr. Ellison very justly defends the character of our judges, and few will disagree with his general conclusions as to their uprightness and industry. But we believe the recent creation of the New York Chamber of Commerce Committee on Arbitration is the best of evidence that the practical operation of the courts, with their sluggish movement and their great bills of expense, has caused the better class of business men to resort to arbitration, to non-professional referees, experts in the subject matters before them, as the quickest and most surely equitable way to dispose of business disagreements and to release their capital quickly from the escrow that every trading disagreement of moment involves.

Mr. Foss's supposititious efforts, as a claim agent are the more interesting and suggestive because one has the belief that if he were a really-truly claim agent he would do nearly as he thinks he would do. This matter of claims is a two-sided one. And when the fact is borne in mind that a very large proportion of country weights are mere approximations, one may the more readily appreciate the force of Mr. Foss's criticism of the *dicta* of the shipper as well as the claim agent. It goes to this effect, however, that claims originate in the country and it is up to the shipper to make his proofs of loss. These must be clear and convincing, and a shipper without scales, who weighs with a tape line and rarely ascertains the specific gravity of his grain—does not do so (as he ought) several times while loading a single car, or one whose scales have not been overhauled since almost any time—can hardly expect to impress a claim agent in the same way as would a man who follows Mr. Foss's lead as a shipper loading to have no loss to put in a claim for, but is ready with "the goods" in the form of complete loading records, in case he has a claim to press. In other words, Mr. Foss's advice to the shipper, who is always on the offensive in the claim office, is to make his case so convincing that there can be no defense against it; and a shipper who follows that advice would be able to do just that thing, as the claim agent also who follows his advice would be able to defeat most claims not supported in the way he points out.

TRADE NOTES

W. H. Wenholz, elevator builder of Cicero, Ill., has moved his offices to Springfield, Ill.

The plant of the Gardner Weigher Co. of Ottawa, Ill., was struck by lightning recently and fire loss followed amounting to \$30,000.

A. J. Clark, recently of Minneapolis, Minn., has organized the Grain Elevator Construction Company at Williston, N. D., for the purpose of doing a general grain elevator construction business.

John S. Metcalf Co., Limited, Montreal and Chicago, has been awarded a contract by the Grand Trunk Railway for a freight warehouse at Point St. Charles, Montreal, Quebec, 1,200 feet long and 60 feet wide, concrete foundations, brick walls and steel posts with wooden doors and roof.

Recent sales of Salisbury R. F. & C. solid woven rubber belting to the grain and milling trade include 1,300 feet of 40-inch belt to the Washburn-Crosby Co., 1,730 feet of various sizes to Itaska Elevator Co., Itaska, Wis.; 1,400 feet to the Colorado Milling and Elevator Co. of Denver, Colo.

John S. Metcalf Co., Limited, Montreal and Chicago, has been awarded a contract by the Grand Trunk Railroad for a twenty-seven stall roundhouse, together with turn table pit, machine shop, water supply system and accessories, to be built in connection with the new yard on its main line near St. Lambert, Quebec. Roundhouse will be of concrete and brick construction with wooden posts and roof.

The Adams Seed Co., Decorah, Iowa, is in the market for mixed alsyke and timothy, which in many places is a drag on the market, for the reason that it cannot be separated. In an announcement elsewhere in this issue the company offers top prices for this seed, for which it has a large trade. The company also is in the market for other grass seeds and desires communication with dealers who have stocks to offer.

George L. Gillette has been appointed assistant to the vice president of the Minneapolis Steel and Machinery Co. of Minneapolis, Minn. Mr. Gillette will have authority to represent the vice president in all matters pertaining to sales in all departments, and the authority also to represent the president and vice president in any special duties which may be assigned to him. W. I. Barnard has been appointed manager of sales of the tractor department.

A recent message from Montreal to Chicago read: "The floating dryer Helena of Chicago, which has been in operation at Fort William a little over a month, has been the means of saving over a million bushels of grain, as without treatment the tough and wet grain would have been worthless. The plant will remain in operation here for another month. There is a large supply of damaged grain in the local yards, and it is said there were 3,000,000 bushels in the West which, having been exposed to the weather, is spoiling, but can be saved by being run through the drying plant."

The Columbus Machine and Tool Company was incorporated in June, with a capital stock of \$500,000, and has since purchased the entire business of the Columbus Machine Company of Columbus, Ohio, and the Vulcan Furnace Company of Warren, Ohio. Contracts have been placed for the construction of an entirely new, modern and up-to-date manufacturing plant in Columbus, Ohio, in which the company will manufacture gas, gasoline and oil engines up to 600 horsepower, mechanical stokers, shaking grates, pipe machines, bolt machines, piston machines, etc. Machine tool and power orders have not yet been placed. Until completion of new plant manufacture is being conducted in the plant of the Columbus Machine Company. D. H. Palmer is the president of the organization.

It is reported that a group of American capitalists have approached the Russian government with a request for permission to form a company, the object of which would be to equip Russia with a system of grain elevators. The government, however, is also considering the construction of a number of such granaries.

THE S. HOWES COMPANY ENLARGES ITS PLANT.

Some philosopher once said that if a man was to do anything better than other men, either by building a better rat-trap or writing a better book, the world would follow his trail, were it necessary to hew a path through a virgin forest. This plain truth, garbed in plain language, pertains quite as much to the elevator machinery trade as to anything else. Orders in plenty for any class of commodity are simply reflections of the merit, care and excellent materials that go into that product.

In talking over business conditions one of the officers of the S. Howes Company, of Silver Creek, N. Y., told the writer that never before in the history of their concern had such a large volume of business been done as during 1912.

"From year to year we have been gratified to see a steady increasing demand for our improved grain cleaning machinery, and in order to keep pace with it we have been forced to build on to our shops periodically.

"Only last year we completed what is conceded to be one of the most modern foundries in New York State. We equipped it with every modern convenience to facilitate getting out work quickly and well, yet no sooner had our new foundry been in operation but a short time than orders began to pile up on us. Even at that we had been operating our establishment day and night to its fullest capacity since the first of January. Something had to be done; our sales were greater than our output—customers were clamoring for their machines.

"This condition of things called for prompt action, and at a recent meeting of our board of directors it was decided to provide a substantial increase in our shop capacity. The A. E. Baxter Engineering & Appraisal Company, of Buffalo, N. Y., the well-known industrial architects, were intrusted with the designing of the new building. They were given unhampered instructions to go ahead and get up the finest and most modern type of fireproof factory they know how. Plans were submitted and approved two weeks ago, and the contract for a large reinforced concrete structure was awarded to the Turner Construction Company of New York City.

"In less than a week after the contract was let men were at work clearing the site and excavating for the foundations. The new building is to be four stories in height; eleven thousand feet of floor space will be used for machine shop purposes, and about the same amount devoted to the woodworking department. Ample space between the columns and fourteen feet between the ceilings will permit of assembling complete the largest grain cleaners ever built. Conveniently arranged power connections will allow of the testing of all machines under actual working conditions before they leave the factory. Steel sash, with something like five thousand panes of glass, will ensure perfect daylight conditions throughout the building. A traveling crane, elevators, electric lights, vacuum cleaning, steam heat and other things will greatly add to the convenience and comfort of the employees. Modern iron and wood working machinery of the most improved kind that it is possible to procure will be installed. The S. Howes Company will therefore, have every facility at hand to execute orders promptly.

"This new annex added to the present shops will constitute by far the largest exclusive grain cleaning machinery factory in the whole world."

For more than half a century the S. Howes Company has progressed until today it is one of the most substantial corporations in New York State. Its "Eureka" machinery is known and used throughout the civilized world. The value of any class of goods that has made a name and place for itself is dependent upon its reputation, in other words the way a house transacts business is and must be the governing factor in its growth and success. In this organization we have an example of the possibilities of growing up with the community by always meeting that community needs in the fairest and most painstaking manner. The firm is com-

posed of thoroughly practical men, good, live, enthusiastic members, who know how to get business and please the grain trade.

THE LAUSON AND FROST KING ENGINE.

The John Lauson Mfg. Company, who manufacture the Lauson and Frost King Engines, have re-constructed their entire line of engines from 2 to 28 HP., making them uniform in design and construction throughout.

The Lauson and Frost King Engines are designed and constructed not only for simplicity and durability, but for economy of fuel and low cost of maintenance. The cylinder and base are cast separately. The shape of the cylinder is such that the minimum of the cylinder wall is exposed to the heat of the explosion and having no sharp corners or side pockets, insures perfect circulation with Hopper Cooler.

The valves are constructed of steel stem with cast iron head welded together and accurately ground to size. They are of sufficient size to allow fuel to enter the cylinder at nearly atmospheric pressure and burnt gasses to escape freely. They are thoroughly water jacketed and exposed uniformly to the heat at the time of explosion, consequently no warping or valve trouble.

The mixer is so designed that a thoroughly vaporized gas is admitted into the cylinder, starting the engine surely and easily under all conditions.

The ignitor has a ground joint without packing and the points can be cleaned while the engine is in operation. The intake valve is located in front of the ignitor points, keeping them clean and cool, igniting every charge. This feature is the reason for the engine being called the "Easy Starting Lauson."

The governor is very accurate and sensitive, equipped with a speed-changing device, permitting the operator to change speed instantly. The crank shaft is of open hearth steel forging of good proportions and accurately ground to size. Cylinder, piston and rings are ground fit to insure perfect compression.

Cams run in a bath of oil and are inclosed in a dust proof case. Gears are of drop-forged steel, machined, accurately cut and unbreakable. All wearing parts, such as piston pin, cam, cam shaft, governor shoes, ignitor parts, rollers, pins, etc., are of steel case hardened and accurately ground to size.

All engines from 2-HP. up are equipped with a built-in, gear-driven, rotary, alternating magnetto, which has no commutator or brushes to get out of order, runs at nearly engine speed, does not burn the ignitor points and starts the engine very easily by simply throwing back against compression. This does away with batteries and ignition troubles, which are 90 per cent of the troubles found in any make of engine.

The Lauson Engines are nicely balanced throughout and finely finished in brewster green, all steel and brass parts being highly polished, which is in harmony with the high-grade material and workmanship throughout.

The above design and construction is responsible for the especially low fuel consumption of the Lauson and Frost King Engines. It has been demonstrated in government tests that these engines use from 25 to 50 per cent less gasoline than other American engines.

This company has been manufacturing engines for many years, having established itself at New Holstein, Wisconsin, in 1879, and its products are well-known throughout the world.

A record run of grain was received and handled at Chicago during the past three days under natural conditions. The inspection sheet of Sept. 4 showed 2,440 cars of all grain, the largest receipts under natural conditions in the history of the Chicago market. On May 29, 1911, there were 2,631 cars received and inspected, due to a squeeze in May wheat. The work of the state inspection was the subject of many favorable criticisms.—Inter-Ocean.

LIFE IN THE GRAIN PITS.



Bull Dreams Again—Aug. 31.



Will Mr. Bear and His "Machine" Flatten Out the Bull?—Zahm's Red Letter, Sept. 7.

WORLD'S YIELDS OF IMPORTANT FARM PRODUCTS.

According to *Bradstreet's*, the average annual "world" production of important crops and the amount produced in the United States is as follows (three figures omitted):

	Five-year period.	World.	United States.	Per cent.	Rank.
Corn, bus., 1905-09.....	3,595,256	2,689,714	74	1	1
Wheat, bus., 1906-10....	3,381,349	670,484	19	1	1
Oats, bus., 1906-10.....	3,869,334	943,995	24	1	2
Barley, bus., 1906-10....	1,338,663	169,284	12	2	1
Rye, bus., 1906-10.....	1,594,575	32,242	2	5	5
Potatoes, bus., 1905-09..	5,195,008	307,044	5	5	1
Cotton, bales, 1905-09...	19,728	11,640	59	1	5
Coffee, lbs., 1905-09.....	2,540,809	*37,130	1	9	2
Flaxseed, bus., 1905-09..	98,675	25,045	25	2	9
Rice, lbs., 1905-09.....	114,095,759	551,989	0.5	10	10
Tobacco, lbs., 1905-09...	2,423,569	757,483	31	1	1
Hops, lbs., 1906-10.....	183,527	47,457	25	1	1
Cane sugar, tons, 1906-07, 10-11.....	7,769	314	4	4	4
Cane sugar, tons, 1906-07, 10-11.....	7,769	*1,009	13	4	4
Beet sugar, tons, 1906-07, 10-11.....	6,852	425	6	5	5
All sugar, tons, 1905-07, 10-11.....	14,622	740	5	8	8
All sugar, tons, 1905-07, 10-11.....	14,622	*1,435	9	4	4

*Including Hawaii and Porto Rico. †Four hundred and seventy-eight pounds net.

Palestine, Texas, reports a stalk of corn with thirty-four ears of corn on it.

Dr. F. L. Dunlap has resigned from the Pure Food Board of the Agricultural Department.

John Aas will have charge of the Hanson & Barzen elevator at Greenbush, Minn., this year.

Garfield Beach of Waubay, S. D., will succeed R. E. Van Vleet as manager of the Farmers' Union Elevator at Webster, S. D.

A. L. Stanchfield has been promoted from cashier to secretary and treasurer of the Spaulding Elevator Co. at Warren, Minn.

Galveston on August 17 cleared 129,165 bus. of wheat for Antwerp, the first wheat cargo exported from that port for three years.

Washington state threshers have been having trouble with smutty wheat, several separators having been destroyed by smut explosions.

S. L. Dotson has resigned his position as manager of the farmers' elevator at Ceylon, Minn., to assume the management of a Montana elevator.

A. M. Anderson of Bowman, N. D., has taken charge of the elevator of the Western Lumber and Grain Co. at Hanes Station, R. F. D. from Hettinger, N. D.

Adam Stavert, formerly buyer for the McCabe Bros.' elevator at Nanson, N. D., has been elected manager for the Rolette Farmers' Elevator Co. at Rolette, N. D.

RECEIPTS AND SHIPMENTS.

Following are the receipts and shipments of grain, etc., at leading receiving and shipping points in the United States for the month of August, 1912:

BALTIMORE—Reported by Jos. B. Hessong, Secretary of the Chamber of Commerce.

Articles	Receipts		Shipments	
	1912	1911	1912	1911
Wheat, bushels.....	1,588,802	2,075,466	647,158	1,707,081
Corn, bushels.....	183,180	205,123	61,512	179,228
Oats, bushels.....	468,017	937,831	800	2
Barley, bushels.....	9,307	1,321		
Rye, bushels.....	4,590	10,745		
Timothy Seed, bushels...	1,567	7,862		
Clover Seed, bushels.....	3,192	5,408	656	1,150
Hay, tons.....	103,935	207,507	31,799	51,572

BOSTON—Reported by James A. McKibben, Secretary of the Chamber of Commerce.

Articles	Receipts		Shipments	
	1912	1911	1912	1911
Flour, barrels.....	129,875	174,141	16,456	48,755
Wheat, bushels.....	1,279,708	1,179,065	1,681,966	1,148,590
Corn, bushels.....	37,817	17,000	4,000	12,565
Oats, bushels.....	397,499	442,423	7,400	2,650
Rye, bushels.....	3,885	4,614		
Barley, bushels.....	432	3,207		
Flaxseed, bushels.....	31,861		31,746	
Peas, bushels.....	487	95		
Millfeed, tons.....	784	753	45	170
Corn Meal, cases.....	4,515	3,530	2,493	1,615
Oat Meal, barrels.....	14,415	11,525	13,904	8,725
Oat Meal, sacks.....	1,021	1,725	715	6,161
Hay, tons.....	6,680	13,040	1,746	4,159

CHICAGO—Reported by J. C. F. Merrill, Secretary of the Board of Trade.

Articles	Receipts		Shipments	
	1912	1911	1912	1911
Wheat, bushels.....	6,295,500	8,850,500	9,230,000	7,251,900
Corn, bushels.....	6,408,900	6,708,000	4,404,400	5,759,200
Oats, bushels.....	14,550,900	13,317,600	7,666,300	6,731,000
Barley, bushels.....	864,700	1,188,000	115,000	217,800
Rye, bushels.....	234,800	174,000	75,400	17,400
Timothy Seed, lbs.....	2,915,800	4,450,500	1,951,100	2,451,700
Clover Seed, lbs.....	573,900	270,000	59,100	118,300
Other Grass Seeds, lbs...	2,565,400	1,050,600	1,321,400	1,472,200
Flax Seed, bushels.....	46,600	72,900	2,100	2,400
Broom Corn, lbs.....	958,800	351,300	422,400	923,900
Hay, tons.....	13,294	28,428	1,421	685
Flour, barrels.....	562,742	575,969	658,462	673,800

CINCINNATI—Reported by W. C. Culkins, Superintendent of the Chamber of Commerce.

Articles	Receipts		Shipments	
	1912	1911	1912	1911
Wheat, bushels.....	607,896		160,462	
Corn, bushels.....	644,655		423,821	
Oats, bushels.....	1,041,175		224,492	
Barley, bushels.....	694			
Rye, bushels.....	36,486		13,336	
Timothy Seed, 100 lb. bgs.	2,492		564	
Clover Seed, lbs.....	1,251		1,216	
Other Grass Seed, lbs.....	7,377		5,923	
Flax Seed, bushels.....	117			
Broom Corn, lbs.....	105,180		86,000	
Hay, tons.....	7,924		2,590	
Flour, bbls.....	99,919		121,726	

DETROIT—Reported by M. S. Donovan, Secretary of the Board of Trade.

Articles	Receipts		Shipments	
	1912	1911	1912	1911
Wheat, bushels.....	23,000	389,882	11,209	36,520
Corn, bushels.....	158,900	262,540	83,191	101,542
Oats, bushels.....	350,000	415,467	88,419	73,240
Barley, bushels.....		2,240		
Rye, bushels.....		31,748	16,263	5,312
Flour, barrels.....	21,735	29,882	27,870	27,866

DULUTH—Reported by Chas. F. Macdonald, Secretary of the Board of Trade.

Articles	Receipts		Shipments	
	1912	1911	1912	1911
Wheat, bushels.....	538,029	1,252,701	2,116,861	1,001,466
Corn, bushels.....		21,606		171,363
Oats, bushels.....	82,196	89,249	69,580	121,973
Barley, bushels.....	311,392	296,767	14,744	110,264
Rye, bushels.....	168,751	98,563	93,068	40,000
Flax Seed, bushels.....	117,637	14,341	245,920	148,481
Flour, bbls.....	747,275	426,900	846,565	517,815
Flour Production.....	72,945	50,900		

GALVESTON—Reported by Chief Grain Inspector of the Cotton Exchange and Board of Trade.

Articles	Receipts		Shipments	
	1912	1911	1912	1911
Wheat, bushels.....		1,608,000		1,073,000
Corn, bushels.....		21,000		
Oats, bushels.....		56,000		
Barley, bushels.....				
Rye, bushels.....		1,000		
Flour, bbls.....			22,000	24,000

KANSAS CITY, MO.—Reported by E. B. Bigelow, Secretary of Board of Trade.

Articles	Receipts		Shipments	
	1912	1911	1912	1911
Wheat, bushels.....	3,832,800	10,437,600	1,987,200	6,054,000
Corn, bushels.....	1,477,200	895,000	939,600	556,250
Oats, bushels.....	588,200	844,900	328,100	457,300
Barley, bushels.....	5,600	4,200	2,800	
Rye, bushels.....	34,100	9,900	37,400	4,400
Kaffir Corn, bushels.....	41,964	37,500	19,642	47,321
Flax Seed, bushels.....	7,000	3,000	2,000	
Brn, tons.....	1,040	1,450	4,980	6,600
Hay, tons.....	19,032	35,016	7,224	6,960
Flour, barrels.....	13,250	25,750	180,500	204,750

MILWAUKEE—Reported by H. A. Plumb, Secretary of the Chamber of Commerce.

Articles	Receipts		Shipments	
	1912	1911	1912	1911
Wheat, bushels.....	1,658,300	1,406,250	817,611	731,176
Corn, bushels.....	589,900	689,300	336,193	332,258
Oats, bushels.....	1,150,200	776,900	614,643	418,331
Barley, bushels.....	603,200	1,761,200	86,533	195,463
Rye, bushels.....	102,300	196,860	17,500	24,380
Timothy Seed, lbs.....		309,290		
Clover Seed, lbs.....	12,525	323,435	36,980	164,670
Flax Seed, bushels.....	39,600			
Hay, tons.....	2,976	2,922	72	156
Flour, bbls.....	235,615	326,690	310,538	313,169

MINNEAPOLIS—Reported by H. W. Moore, Statistician of the Chamber of Commerce.

Articles	Receipts		Shipments	
	1912	1911	1912	1911
Wheat, bushels.....	8,761,050	6,662,000	1,992,730	2,342,230
Corn, bushels.....	345,030	663,150	661,100	241,100
Oats, bushels.....	1,373,830	832,860	827,680	233,190
Barley, bushels.....	2,001,340	1,126,600	1,161,200	500,710
Rye, bushels.....	842,510	391,940	260,680	123,240
Flax Seed, bushels.....	160,000	191,250	25,590	8,590
Hay, tons.....	3,450	3,020	240	640
Flour, bbls.....	38,364	27,409	1,340,777	1,395,655

MONTREAL—Reported by George Hudrill, Secretary of the Board of Trade.

Articles	Receipts		Shipments	
	1912	1911	1912	1911
Wheat, bushels.....	3,120,430	3,797,814	2,601,253	2,500,317
Corn, bushels.....	32,729	443,033	11,235	1,243,286
Oats, bushels.....	2,266,166	1,580,182	952,924	1,148,483
Barley, bushels.....	184,813	80,083	151,862	25,115
Rye, bushels.....				
Flax Seed, bushels.....	41,967	44,944		940
Flour, sacks.....	234,518	423,281	402,834	326,783

NEW YORK—Reported by H. Heinzer, Statistician of the Produce Exchange.

Articles	Receipts		Shipments	
	1912	1911	1912	1911
Wheat, bushels.....	3,334,700	4,361,500	2,454,191	3,067,164
Corn, bushels.....	355,750	490,688	86,923	387,709
Oats, bushels.....	2,107,850	3,279,175	131,633	48,882
Barley, bushels.....	57,507	71,435		
Rye, bushels.....	2,300	2,300		
Timothy Seed, lbs.....			bgs. 300	
Clover Seed, lbs.....	bgs. 2,840	bgs. 2,495	bgs. 1,695	4,564
Other Grass Seed, lbs...				
Flax Seed bushels.....	253,696	220,806		2,742
Hay, tons.....	23,772	26,346	bls. 18,530	14,556
Flour, bbls.....	697,510	784,973	298,008	321,478

OMAHA—Reported by F. P. Manchester, Secretary of the Omaha Grain Exchange.

Articles	Receipts		Shipments	
	1912	1911	1912	1911
Wheat, bushels.....	1,640,400	3,012,000	1,110,000	1,766,400
Corn, bushels.....	1,492,800	1,395,600	1,095,000	1,246,300
Oats, bushels.....	725,900	1,003,000	315,000	598,500
Barley, bushels.....	127,400	42,000	24,000	4,000
Rye, bushels.....	5,500	3,300	5,000	1,000

PHILADELPHIA—Reported by Frank E. Marshall, Secretary of the Commercial Exchange.

Articles	Receipts		Shipments	
	1912	1911	1912	1911
Wheat, bushels.....	2,393,082	2,004,294	1,774,629	1,278,292
Corn, bushels.....	89,900	108,975		
Oats, bushels.....	844,403	1,115,161		
Barley, bushels.....				
Rye, bushels.....	800	1,600		
Timothy Seed, bags.....				
Clover Seed, bags.....		210		
Other Grass Seeds, bags..	8,000			
Flax Seed, bushels.....				
Hay, tons.....	6,025	5,884		
Flour, bbls.....	106,702	230,456	30,942	74,106

SAN FRANCISCO—Reported by Wm. B. Downes, Secretary of the Chamber of Commerce.

Articles	Receipts	
----------	----------	--

ELEVATOR AND GRAIN NEWS

IOWA.

A new elevator has been completed at Sully, Iowa. John Beery will build an elevator at Garwin, Iowa.

S. J. Clausen has remodeled his elevator at Clear Lake, Iowa.

Thomas Lacey has purchased the Tuttle Elevator at Spencer, Iowa.

A farmers' elevator is under course of construction at Lynnvile, Iowa.

C. M. Varney of Spencer, Iowa, has purchased an elevator at Dickens, Iowa.

Wegener & Higgins have purchased the Button Elevator at Whittemore, Iowa.

The Farmers' Grain Co. will double the capacity of its elevator at Moorland, Iowa.

It is rumored that a farmers' organization will construct an elevator at Pella, Iowa.

Plans are under consideration for the rebuilding of the two elevators that burned at Dana, Iowa.

The Iowa Grain and Milling Co. at Davenport has dissolved. The capital stock was \$25,000.

The Updike Grain Co. purchased a Hall Signaling Grain Distributor for its elevator at Rolfe, Iowa.

The Farmers' Grain Co., recently incorporated at Granger, Iowa, is building an elevator at that place.

William Balentine of Prosper, Minn., has purchased the elevator of J. W. Irons at New Albin, Iowa.

The Hynes Grain Co. will install a Hall Signaling Grain Distributor in its elevator at Lidderdale, Iowa.

The recent improvements on the elevator at Thornton, Iowa, have increased its capacity to 10,000 bushels.

The Cedar Rapids Grain Co., Cedar Rapids, Iowa, will equip its elevator with a Hall Signaling Grain Distributor.

The Shotwell Manufacturing Co. of Chicago will build an elevator and popcorn cribs at Arthur, Iowa, this fall.

The Younglove Construction Co. bought a Hall Signaling Distributor for the elevator at Pocahontas, Iowa.

A farmers' elevator is under course of construction at Onawa, Iowa, and will be ready for business November 15.

The Hunting Grain Co. of Minneapolis has purchased the elevator at Lime Springs, Iowa, formerly owned by A. J. Cray.

The Farmers' Grain and Supply Co. at Paullina, Iowa, has completed its 45,000-bushel elevator. John Tjossenn is manager.

The farmers in the vicinity of Panora, Iowa, are securing stock subscriptions for the building of an elevator at that point.

George Holmes is building an 8,000-bushel elevator at Donnan, Iowa. The structure will cover a floor space 32x52 feet.

C. W. Baker has taken over the lease of the elevator at Mapleton, Iowa, from Downing & Kelly of the Neola Elevator Co.

The Fraser Elevator at Aurelia, Iowa, has been so remodeled as to increase the capacity from 800 to 1,600 bushels per hour.

The farmers around Lamoni, Iowa, are endeavoring to organize a corporation which will be called the Farmers' Grain and Seed Co.

The Haynes Grain Co. is building an addition to its elevator at Lidderdale, Iowa. The new structure will have a capacity of 15,000 bushels.

The farmers of Grant township held a meeting Aug. 17, at Shipley, Iowa, for the purpose of organizing a farmers' elevator company.

J. E. Bosserman has doubled the capacity of his seed house at Murray, Iowa, by building a second floor, 24x24 feet, on the wing of his elevator.

The engine room and coal house of the Gilchrist Elevator at Cresco, Iowa, have been torn down and rebuilt and the elevator bins have been rearranged.

A new co-operative elevator and stock company is being formed at Dysart, Iowa, which will take over the grain and stock business of H. P. Jensen.

The Farmers' Grain Co. at Nevada, Iowa, has increased its capital stock from \$10,000 to \$15,000 for the purpose of maintaining a lumber yard at that point.

The Farmers' Elevator Co. at Bagley, Iowa, has increased its capital stock \$2,500 to provide additional equipment such as cribs, coal sheds, cement house, etc.

The Davis City Elevator Co. has organized at Davis City, Iowa, with a capital stock of \$10,000. Thomas Sutherland, Oscar Judd, William Lee, John Gates and Mr. Bolan, all of Davis City, are stock-

holders. An elevator having a capacity of 10,000 bushels will be erected.

The new firm of Johnson & Lundahl has purchased the Granger Elevator Co.'s elevator at Madrid, Iowa, the property of the late George and James Hanley.

The West Union Farmers' Co-operative Commission Co. has purchased the elevator at West Union, Iowa, which has been owned and operated by the West Union Grain Co.

The Jackson Grain Co., the plant of which was recently burned at Cedar Rapids, Iowa, has established temporary headquarters and is buying grain as if there had been no fire.

George Van Camp of the firm of Walsworth & Van Camp has sold his interest in the elevator at Greenfield, Iowa, to Joe Johnston, who has been employed in the elevator for years.

Van Buskirk Bros. of Shenandoah, Iowa, have established a branch house of their grain business at Tarkio, Iowa. They may build an elevator at this place if the business warrants the project.

The Quaker Oats Co.'s elevators at Lake View and Lake City, Iowa, were recently purchased by the Updike Milling Co. of Omaha, Neb. Frank Simmons will continue to manage the business at Lake View for the new company.

The Barnet & Record Co. of Minneapolis has been awarded a contract for the construction of a 400,000-bushel elevator at Cedar Rapids, Iowa, for the Quaker Oats Co. The house will consist of 40 storage tanks of tile construction.

Gilchrist & Co. have remodeled their elevator at Ossian, Iowa. They have installed a new Howe Scale, an Avery Automatic Scale with a capacity of 1,500 bushels an hour, a manlift and a Clipper Cleaner with a capacity of 1,500 bushels per hour. The building has also had new siding and paint.

ILLINOIS.

John Trotter & Sons are erecting an elevator at Coal City, Ill.

A farmers' elevator company is being organized at Seymour, Ill.

The Farmers' Elevator at Taylor Ridge, Ill., has been completed.

A new farmers' elevator is under course of construction at Sandwich, Ill.

The Heidlon Elevator at New Canton, Ill., will be completed by October 15.

C. F. Meyers has sold his elevator at Brisbane, Ill., to H. W. Dickenson of New Lenox, Ill.

The Farmers' Elevator Co. bought a Hall Signaling Grain Distributor for its elevator at Tonica, Ill.

A meeting was held at Fairview, Ill., Aug. 24, for the purpose of organizing a farmers' elevator company.

Cuppy & Son have purchased the National Elevator at Kemp, Ill., and they will take possession Oct. 1.

The Hall Distributor Co. shipped twelve Hall Signaling Grain Distributors to the H. W. Caldwell & Sons Co. at Chicago.

The Weston Grain Co. has completed an addition, 40x48 feet, to the plant at Weston, Ill. It has a capacity of 135,000 bushels.

The Rutland Farmers' Grain and Supply Co. at Rutland, Ill., is installing two Hall Signaling Grain Distributors in its elevator.

The Farmers' Elevator Co. has incorporated at Buda, Ill., with a capital stock of \$5,000. T. A. Zink, S. H. Foster and E. J. Swope are the incorporators.

The Westervelt Grain Co. has incorporated at Westervelt, Ill., with a capital stock of \$6,000. The incorporators are E. S. Combs, J. E. Dazey and A. W. Askins.

The Wakefield Grain Co. has incorporated at Waterman, Ill., with a capital stock of \$5,000. The incorporators are Frederic Ullman, Jr., P. H. Hoag and Dennis A. Gray.

An effort is being made at Portland, Ill., a station south of La Salle on the Burlington Railroad, to secure an elevator for this point. The Portland Commercial Association is working on the proposition.

The Union Grain Elevator Co. has incorporated at Stillwell, Ill., with a capital stock of \$2,500. The incorporators are Samuel Peterson, William Sanderson, Peter Hartman, William R. Tanner and Glen Steiner.

F. L. Warner of Bloomington, Ill., has purchased the farmers' elevator at Arrowsmith, Ill. Mr. Warner has been associated with the grain business for 25 years. He will give his entire attention to the business at Arrowsmith, but will retain his residence in Bloomington.

C. L. Foucht, who has been associated with F. G. Ames in the grain business at Rutland, Ill., for the past five years, has taken over the buildings and business of both firms of Ames & Foucht and George A. Sauer. This merger means only two grain firms

at Rutland now, the other being the farmers' corporation.

William Murray of Champaign, Ill., and Hamman Bros. of Milmine, Ill., have purchased an elevator at Roberts, Ill., at the administrator's sale of the estate of E. Moshier. The elevator is an old one but Mr. Murray contemplates the construction of a new one after the oats run is over.

Secretary Strong of the Illinois Grain Dealers' Association reports the following changes in the ownership of Illinois elevators during the month of July: W. J. Sullivan succeeds the Farmers' Elevator Co. at New Holland; Bader & Co. succeed Yeoman & McGarraugh at Avon; Wm. C. Smith succeeds Geo. P. Bowman & Sons at Crossville; Powell & Rice succeed F. A. Warren & Co. at Duval; Surface & Packingham succeed H. E. Surface at Granville; Collins & Rice succeed J. E. Collins at Garrett; Geo. Petri succeeds J. E. Tjardes at Rankin; Thos. Hoadley succeeds Scott & Hoadley at La Fayette; Watt & Gabel succeed M. C. Garrard & Son at Elvaston; R. C. Parks succeeds J. W. Lewellen at Bruce, and Dorney, Storkman & Co. succeed Holsen, Dorney & Co. at Mt. Carmel.

SOUTHERN AND SOUTHWESTERN.

E. K. Booker has opened a grain and hay store at Brenham, Texas.

The Blackwell Elevator Co. is building a 20,000-bushel elevator at Nardin, Okla.

The Denison Mill & Grain Co. at Denison, Texas, has increased its capital stock from \$60,000 to \$75,000.

Martin Resteiro is completing the erection of a grain elevator at Brownsville, Texas, at a cost of \$20,000.

The Amarillo Mill & Elevator Co. is building five corrugated galvanized iron grain bins at Amarillo, Texas.

Geo. B. Matthews & Sons, dealers in grain, hay and feed at New Orleans, La., have moved into larger quarters.

The Palestine Grain Co. will erect a brick building, 60x108 feet, to be used in the wholesale feed and grain business at Palestine, Texas.

J. B. Haggin of Elmendorf Farm, Lexington, Ky., has ordered a complete new elevator equipment from the Nordyke & Marmon Co. of Indianapolis.

The Weathers Grain Co., capitalized at \$6,000, has incorporated at Greenville, Texas. J. T. Campbell, Hugh Horn and H. T. Weathers are the incorporators.

J. L. McCabe is building a new grain elevator and feed mill at Wann, Okla. The Great Western Manufacturing Co. of Leavenworth, Kan., has installed the machinery.

The Union Grain and Supply Co. has incorporated at Mooreland, Okla., with a capital stock of \$2,500. The incorporators are A. W. McNutt, R. C. Stout, B. K. Stout and C. B. Lehr.

The Hardinsburg Mill & Elevator Co. has incorporated at Hardinsburg, Ky., with a capital stock of \$15,000. The incorporators are J. A. Cook, Alfred Taylor and Frank De Haven.

The Edgar-Morgan Grain Co. will build a \$25,000 elevator at Memphis, Tenn. The company expects to complete the plant, which will have a capacity of 50,000 bushels, by November 1.

The Hidalgo Grain Co. has dissolved at Hidalgo, Texas, and Mr. Randolph has taken over the stock and removed it to the building formerly occupied by the McAllen Grain & Implement Co.

J. A. Chisholm has taken over the plant of the Bogalusa Grain Co. at Bogalusa, Tenn. Mr. Chisholm was formerly the senior member of the firm, recently having sold his interest to Sibley Bros.

The Childress Grain & Elevator Co. has finished the construction of a grain warehouse at Temple, Texas. A new corn sheller of 3,000 bushels' daily capacity was installed. The total expenditure amounted to \$5,000.

The Mallory-Martin Co. has incorporated at Richmond, Va., with a capital stock of from \$5,000 to \$15,000. The company will conduct a coal, wood and grain business. J. Henry Martin is president and D. W. Mallory is secretary-treasurer.

The Grimes Milling Co. will erect a grain elevator adjoining its plant at Salisbury, N. C. The building will be 30x35 feet, 75 feet high and of wood construction with a cement basement. It will have 11 bins with a capacity of 1,500 to 2,000 bushels.

The Lost Creek Feed Co. has incorporated at Lost Creek, W. Va., to engage in the feed and grain business. The capital stock is \$25,000. The incorporators are P. M. Cox, Findlay, Ohio; T. B. Jones, C. V. Anderson and N. B. Jones, all of Toledo, Ohio.

Additions amounting to \$100,000 have been completed on the Kentucky Public Grain Elevator at Louisville, Ky. The capacity has been increased 4,000,000 bushels, thus bringing the total capacity to over 100,000,000 bushels and enabling it to handle 1,000 cars of grain in a day. Sixteen new concrete

pits for grain storage have been constructed on the south side of the elevator. These are equipped with the latest devices for handling grain.

The Oklahoma Mill & Elevator Co. will increase its storage capacity at Oklahoma City, Okla., to 235,000 bushels by the construction of four new steel storage tanks having a combined capacity of 135,000 bushels. This company contemplates increasing its storage capacity to 500,000 bushels.

The Western Grain Co. has completed its new plant at Birmingham, Ala. The president, Edward Wilkinson, entertained about 200 wholesale grocers at a barbecue recently at the opening of the establishment. The plant covers a floor space of about 36,000 square feet, is five stories in height and cost approximately \$150,000.

The United States Feed & Grain Co., capitalized at \$25,000, has incorporated at Memphis, Tenn. S. E. Rison is president and C. O. Ramer secretary and treasurer. An elevator will be erected at Aulon, R. F. D. from Memphis, at a cost of several thousand dollars. It will be operated by electricity and equipped with the latest machinery.

OHIO, INDIANA AND MICHIGAN.

The elevator at Okemos, Mich., has been remodeled.

James Southwick is erecting an elevator at Harrietta, Mich.

The Haskins Farmers' Grain Co. has purchased the Watts Elevator at Haskins, Ohio.

J. L. Ortnier has constructed an addition to his elevator warehouse at Richville, Mich.

Jacob Gelzleichter has engaged in the grain business at Huntington, Ind., with Henry Silver.

Geo. M. Edger equipped his elevator at Mechanicsburg, Ohio, with a Hall Signaling Distributor.

The Memphis Elevator Co. has incorporated at Memphis, Mich., with a capital stock of \$10,000.

The Stockbridge Elevator Co. is building a 26x125-foot addition to its elevator at Potterville, Mich.

Ander Ringlein will install a Hall Signaling Grain Distributor in his new elevator at Leipsic, Ohio.

The Nappanee Produce Co. has sold its wholesale grain and hay business at Nappanee, Ind., to George Bros.

The Mason Elevator Co. is installing a Hall Signaling Grain Distributor in its elevator at Mason, Mich.

The Defunct Ohio Milling and Elevator Co. at Marion, Ohio, has been purchased by J. Wilbur Jacoby.

The Farm Produce Co. equipped its elevator at Cass City, Mich., with a Hall Signaling Grain Distributor.

Stevens & Martin have equipped their elevator at Doster, Mich., with a Hall Signaling Grain Distributor.

The F. M. Towner Co. is constructing a new shed, 50x20 feet in size, over the front of its elevator at Morrice, Mich.

The Union Grain and Coal Co. of Anderson, Ind., has installed a complete Nordyke & Marmon Co. feed mixing outfit.

The Harrison Elevator Co. has incorporated at Harrison, Mich., and it is constructing a \$5,000 elevator at that place.

The Farmers' Elevator at South Whitley, Ind., is complete and Conrad Erns has assumed the management of the business.

The Goemann Grain Co. has completed 10 concrete storage tanks, each having a capacity of 3,000 bushels, at Mansfield, Ohio.

Morrison, Finch & Co. are erecting a 300,000-bushel elevator at Covington, Ind., near the site of the one that recently burned.

The Kelley-Betts Grain Co. has incorporated at Talbott, Ind., with a capital stock of \$21,000. Frank Kelley, Lee Kelley and A. E. Betts are the directors.

The Columbia Equity Co. has incorporated at Columbia City, Ind., with a capital stock of \$10,000, to buy grain and to conduct a general supply business for farmers.

The grain elevator at Alvada, Ohio, has been moved 50 feet further away from the Hocking Valley Railroad tracks to lessen the liability to fire. The railroad company bore the expense of removal.

E. T. Cusenbolder, George L. Kraft and John Allinger have purchased the Jackson Center Elevator at Jackson Center, Ohio, from William Ludwig. The new firm will be known as George L. Kraft & Co.

The Clover Leaf Elevator, formerly known as the West Side Iron Elevator, at Toledo, Ohio, together with 10 steel tanks, has been purchased by Oliver W. Randolph of McClure, Ohio, from C. E. Metzler of the American Cattle & Poultry Food Co. of Binghamton, N. Y. Mr. Randolph represents a large number of Ohio and Indiana shippers. He intends to operate the elevator as a central plant for re-

grading and conditioning grain. The storage capacity of the concern is 250,000 bushels.

The Breckenridge Hay & Feed Co. purchased a Hall Signaling Grain Distributor for its house at Breckenridge, Mich.

Oscar Crowell's new elevators at Columbia City, Ind., have been completed. Electric motors have been installed and the plant is modern in every respect.

Starks & Plunkett have dissolved partnership at Perry, Mich., Hiram Starks having secured Mr. Plunkett's interest. The latter retires because of ill health.

The Crabbs, Reynolds Taylor Co. is building a \$6,000-elevator at Crawfordsville, Ind. The structure is three stories in height, and is an addition to the present plant.

The Co-operative Grain & Milling Co., capitalized at \$30,000, has incorporated at Tiro, Ohio. The incorporators are Sherman Daugherty, J. M. Van Tilbury, George W. Cahill, A. E. Fox, B. H. Stevens and W. A. Brown.

The Defiance Grain & Milling Co. at Defiance, Ohio, has purchased five Fairbanks-Morse Electric Motors to replace its steam plant in the mill. The present engine room will be torn down and an elevator will be constructed on this site.

Goodrich Bros. of Valparaiso, Ind., have taken over the elevator at Nickel, Ind., formerly owned by Mayfield & Davidson. This firm recently acquired also the grain house at Boone Grove, Ind. John Bauer will manage the elevator at Nickel.

Wm. Scherffus of Evansville, Ind., will install a complete line of Nordyke & Marmon Co. elevator equipment, grain cleaners, power shovels, etc., in his new oat handling and storage elevator located on a spur of the Illinois Central R. R. at Evansville, Ind.

A prize of \$25 in gold in a sweepstake contest between the Gleaners and Grangers of Defiance County, has been offered by the Defiance Grain and Milling Co. of Defiance, Ohio, to be awarded at the Fall Festival, for the best total percentage in a display of grains.

The Nickel Grain Co., capitalized at \$20,000, has organized at Valparaiso, Ind., to conduct a general grain business in Porter, Laporte, Lake and St. Joseph Counties. S. D. Bailey of Wanatah was elected president and P. E. Goodrich of Winchester secretary and treasurer.

MISSOURI, KANSAS AND NEBRASKA.

A new elevator is under course of construction at Neola, Kan.

The Hoffman Elevator at New Cambria, Kan., is now complete.

The contract has been let for a new elevator at Ingleside, Neb.

The Rock Elevator Co. is erecting a new elevator at Grigsby, Kan.

A. M. Long is constructing a 20,000-bushel elevator at Belpre, Kan.

The farmers around Butler, Kan., are considering the erection of an elevator.

The Southwest Grain Co. of Hutchinson, Kan., will build a new elevator at Fowler, Kan.

The Farmers Grain Co. has installed a Hall Signaling Distributor in its elevator at Thurston, Neb.

E. T. Berry of Smith Center, Kan., has purchased the plant of the Lawrence Milling & Elevator Co. at Lawrence, Neb.

J. S. Null, who recently built an elevator at Springhill, Kan., has purchased machinery of the Great Western Manufacturing Co. of Leavenworth, Kan.

The Lysle Milling Co. has completed its new elevator at Leavenworth, Kan. It is the highest structure in the city and has a capacity of 250,000 bushels.

The Chetopa Grain Co. of Chetopa, Kan., has placed an order with the Great Western Manufacturing Co., Leavenworth, Kan., for machinery equipment for its grain elevator.

The Macksville Lumber & Grain Co. of Macksville, Kan., has installed equipment from the Great Western Manufacturing Co., Leavenworth, Kan., in its new elevator at Belpre, Kan.

The Morse Bluff Grain Co. has organized at Morse Bluff, Neb., and purchased the J. E. Dorsey Grain Elevator Co., paying \$5,000. The elevator will be conducted on the co-operative plan.

The Christian Bros. Mercantile Co., Rockport, Mo., is building a new grain elevator. The entire machinery equipment was ordered from the Great Western Manufacturing Co., Leavenworth, Kan.

The business of the Paule Grain and Milling Co., wholesale grain and feed dealers, and the Arthur B. Paule Fuel and Material Co. of St. Louis, Mo., have merged in a new company which has incorporated under the name of the Paule-Schmidt Supply Co. The capital stock is \$30,000. The incorporators are Charles A. Schmidt, Arthur B. Paule and Edwin J. Paule. The new concern will en-

large the plants by building a grain warehouse to cost about \$10,000.

George Gano has purchased the interest of E. M. Clift in the elevator and feed mill at Frankfort, Kan.

The Rush Center Coal, Grain & Live Stock Association has installed a Hall Special Elevator Leg in its elevator at Rush Center, Kan.

The farmers around Thayer, Neb., have formed a grain association with a membership of 118. They have elected N. E. Calkins president and Gilbert Goudy secretary. The company will either buy or build an elevator.

The Morganville Home Mill & Elevator Co. at Morganville, Kan., has changed the style of its name to the Federated Mills Co. The owners of this plant are the Silver Grain Co., J. W. Howell, C. C. Stillman and J. A. Miller.

A series of meetings was held at Plains, Kan., August 19 to 24, for the purpose of interesting the farmers in that vicinity in a new elevator. The campaign was conducted by the Farmers' Equity Union, which was represented by G. O. Drayton of Greenville, Ill., and R. Romer of Liberal, Kan. Meetings were also held at Meade and Mullinville, Kan., for the same purpose.

MINNESOTA AND WISCONSIN.

A new elevator has been constructed at Minneota, Minn.

A Farmers' Elevator Co. is being organized at Tyler, Minn.

A. E. Erwin has leased the elevator at Ward Springs, Minn.

The Farmers' Elevator Co. will build an elevator at Reading, Minn.

The Farmers' Elevator Co. is constructing an elevator at Oklee, Minn.

The new Atlas Elevator at Sanborn, Minn., is practically completed.

E. J. Matteson has purchased the Plymouth Elevator at St. Peter, Minn.

The Farmers' Elevator Co., Owatonna, Minn., has put up a new feed mill.

Andrew Larson sold his elevator at Willmar, Minn., to Albert Johnson.

The Western Elevator Co. has remodeled its house at Winona, Minn.

The Monarch Elevator at Watson, Minn., has been purchased by B. Odegard.

New machinery has been installed in the Moen Elevator at Chester, Minn.

The Hubbard & Palmer Elevator at Lake Wilson, Minn., has begun operations.

An engine house has been built for the Andrews Elevator at Underwood, Minn.

A. J. Wilson has constructed a 15,000-barrel elevator at West Concord, Minn.

The Wohlheter Elevator at Northrop, Minn., was sold to A. L. Ward for \$1,050.

The Co-operative Elevator Co. will build an elevator at Govrick, Minn., this fall.

A company of farmers has purchased the Davenport Elevator at Wilmont, Minn.

K. Kreuger and C. A. Zieske have purchased the Farmers' Elevator at Dovray, Minn.

The Farmers' Elevator at Forada, Minn., has been completed and grain is being received.

The Farmers' Grain Exchange Co. has purchased the Columbia Elevator at Hector, Minn.

The Atlas Elevator Co. has installed a new outside scale in its plant at Canby, Minn.

The Peavey Elevator Co. has an elevator under course of construction at Norcross, Minn.

The Minnesota Linseed Oil Co. has begun work on a \$75,000 elevator at Minneapolis, Minn.

The Farmers' Elevator Co. has purchased the Western Elevator at Ceylon, Minn., for \$3,200.

The Dundee Farmers' Elevator Co. has purchased the Hubbard & Palmer Elevator at Dundee, Minn.

Charles L. Alexander has taken over the Minneapolis & Northern Elevator at Pelican Rapids, Minn.

A new gasoline engine has been installed in the elevator of the La Crosse Grain Co. at Dexter, Minn.

I. W. York & Co., Portage, Wis., are equipping their elevator with a Hall Signaling Grain Distributor.

The Benson Grain Co. of Heron Lake, Minn., has purchased an elevator at Pemberton, Minn., from C. L. Todd.

The Pacific Elevator Co. has purchased the Exchange Elevator at Renville, Minn. J. D. Satre is in charge.

Marshall & Hummel have completed a new grain and produce warehouse near their elevator at Kaukauna, Wis.

The Atlantic Elevator Co. is remodeling its flat house at Rockford, Minn., into a modern elevator by raising the building, installing elevators and a

gasoline engine. R. A. Cornforth is the local manager.

E. A. Brown has torn down his elevator at Kenyon, Minn., and he will remove it to South Dakota.

The Moon Elevator at Le Roy, Minn., has been torn down and another will be erected to replace it.

The Coleman Implement Co. of Coleman, Wis., purchased a Hall Signaling Grain Distributor recently.

A. Swoffer has disposed of his elevator and feed business at Walnut Grove, Minn., to E. W. and W. A. Swoffer.

The Pioneer Loan and Land Co. has leased the Interstate Elevator at Warren, Minn., and it has been repaired.

The Farmers' Grain & Live Stock Co. will incorporate at Fairfax, Minn., with a capital stock of about \$20,000.

The Harrington Elevator at Ihlen, Minn., has been purchased by the A. A. Truax Grain Co. of Mitchell, S. D.

The Crown Elevator at Correll, Minn., has been purchased by the Farmers' Elevator Co. William Tibbles is buyer.

The Duluth Elevator Co. has dismantled its elevator at Barry, Minn., and it will be shipped to some other point.

A new elevator is being constructed at Oklee, Minn., by the Hanson-Barzen Milling Co. of Thief River Falls, Minn.

W. R. McConochie has purchased the Western Elevator at Lake City, Minn., which he has managed several years.

The Pacific Elevator Co. has purchased the Coffey Elevator at Ash Creek, Minn. H. Schlueter has been engaged as buyer.

The Osakis Milling Co. is building a 30,000-bushel elevator at Osakis, Minn., which will be ready to receive grain by Oct. 1.

The Golden Rule Co. has purchased the Van Duzen Elevator at Bertha, Minn., and will remodel it for a potato warehouse.

The Farmers' Produce Co. of Chippewa Falls, Wis., has secured the business of the Northern Grain Co. at Howard, Wis.

Owing to continued ill health, Gust Halvorson has leased his elevator at Boyd, Minn., to G. J. Finske and Fred Eckhardt.

D. C. Harrington of Sioux Falls, S. D., is considering the feasibility of fitting up the old Hyde Elevator at Pipestone, Minn.

The New Richmond Produce Co. has replaced the gasoline engine in its elevator at New Richmond, Wis., with electric equipment.

The Farmers' Elevator Co. has installed electric motors in its house at Kenyon, Minn., replacing the gasoline engine that has supplied its power.

A number of improvements have been made on the Farmers' Elevator at Mantorville, Minn., including the installation of new dump scales.

J. B. Watson has purchased the Seeger Elevator at Marietto, Minn., and will engage in business under the name of the J. B. Watson Grain Co.

The Clara City Farmers' Elevator Co. has made a number of improvements in its plant at Clara City, Minn., including the construction of new coal sheds.

The Montevideo Equity Co-operative Elevator & Trading Co. has purchased the Stebbins Elevator at Montevideo, Minn. The consideration was about \$8,000.

The Equity Elevator Co. has purchased the Tewes & Brandeis Elevator at Sturgeon Bay, Wis. The plant has been thoroughly overhauled and remodeled.

A new elevator is being constructed at Lake Traverse, near Browns Valley, Minn. All grain received at this point will be conveyed by boat to the railroad.

The promoters of a Farmers' Elevator Co. at Hallock, Minn., have abandoned the proposition, as the farmers in the vicinity are not sufficiently interested in the project.

The Equity Elevator Trading Co., recently organized at Wood Lake, Minn., has purchased the storage house formerly owned by the Great Western Grain Co., for \$5,500.

F. A. Monroe, who has managed the Farmers' Elevator at Browns Valley, Minn., for the past seven years, has purchased the local house of the Northwestern Elevator Co.

Truman Hall of Granada, Minn., and J. Miller, auditor for the De Wolf & Wells Grain Co. of Marathon, Iowa, have been looking over the elevator at Huntley, Minn., with a view to repairing and operating it.

Hanson & Barzen of Thief River Falls, Minn., and George Marvin of Warroad, Minn., are constructing the first grain elevator at Warroad, Minn. As much of the grain will come in on barges from points along the Lake-of-the-Woods, on which Warroad is situated, for shipment to Duluth, Minne-

apolis and other points, the house will be a harbor as well as a railroad elevator.

The mill and elevator at Ivanhoe, Minn., formerly owned by the Osseo State Bank of Osseo, Wis., has been purchased by Samuel Stanfield of Tilbury, Ont., for \$40,000.

The facilities of the elevator at Medford, Minn., have been increased by the construction of an addition and the installation of new scales. H. B. Adams is manager of this house.

The Farmers' Elevator Co. has purchased the Peavey Elevator at Windom, Minn., in which it will conduct its business, using its present elevator for storage purposes.

A. Pierre has installed a Racine Dustless Separator, made by the Johnson & Field Manufacturing Co. of Racine, Wis., in his elevator at Oconto, Wis. It has a capacity of 400 bushels an hour.

The Mabel Elevator Co. at Mabel, Minn., has let a contract to Fairbanks-Morse & Co. for an electric lighting system for the town, which will be installed in connection with the company's plant.

The Wohltheter Elevators at Fairmont and Truman, Minn., were recently sold at auction. The Truman Farmers' Elevator Co. secured the house at Truman and the Martin County National Bank bid in the other.

Will Jordan has disposed of his elevator at Taopi, Minn., to Mr. Pitts and has moved to Bairy, where he will continue to sell grain. John C. Folger, of Alton, Iowa, has leased and will operate the plant at Taopi.

The ruins of the recently burned Anthony & Dakota Elevator at Princeton, Minn., have been removed for the reconstruction of a new house on the old site. The new structure will be modern in all points, but of smaller capacity than the old house, which was a 33,000-bushel concern.

The Erdahl Farmers' Elevator Co. has incorporated at Erdahl, Minn., with a capital stock of \$25,000. The incorporators are C. A. Bergren, G. K. Westboe, Martin N. Lee, O. G. Reine, C. J. Kjelstrup, K. K. Lee, Osmond Groven, Peter Borgen and H. H. Berskow. The company has purchased the State Elevator.

CANADIAN.

Work has begun on a new elevator at Humboldt, Sask.

The Morse Elevator Co., Ltd., has incorporated at Morse, Sask.

The Canadian Farmers' Hay Exchange has engaged in business at Winnipeg, Man.

The Superior Elevator Co., Ltd., has incorporated at Winnipeg with a capital stock of \$150,000.

A party of Fort William business men is touring the largest American grain markets to study conditions.

A 35,000-bushel elevator is under course of construction at Davidson, Sask., for the Co-operative Elevator Co.

The Maple Leaf Milling Co. is building a 120,000-bushel elevator at Brandon, Man. The plant is to be finished by Oct. 15.

The Harbor Commissioners of Montreal are planning to construct three new grain elevators with a combined capacity of 7,500,000 bushels.

The siding at the plant of the Taylor Milling and Elevator Co. at Lethbridge, Alta., has been extended by the Canadian Pacific Railroad.

The Farmers' Milling and Elevator Co.'s plant at Prince Albert, Sask., may resume operations if sufficient capital can be secured to conduct the enterprise.

The Vancouver Grain and Milling Co. has taken over the grain business of T. H. Horne at Victoria, B. C. Robert McKee will manage the Victoria branch.

J. M. Hastings has purchased an elevator at Sintaluta, Sask., from the Winnipeg Elevator Co., Ltd. C. L. Gordan has increased the capacity of his elevator at Shoal Lake, Man., to 50,000 bushels.

The Royal Elevator Co. has acquired the Farmers' Elevator at Lumsden, Sask., paying \$3,000 for the building and contents. The two buildings will have a combined capacity of 55,000 bushels. Wm. Fulton will manage both elevators.

C. Manasse, representing Henry P. Newman, the well-known grain importer of Berlin, Hamburg, Antwerp and Bremen, is a visitor at Winnipeg in the interests of his house. He will secure samples of the various grades of wheat and send them to Antwerp for testing to ascertain which grade will show the best milling value.

A committee from the United Farmers of Alberta, with a similar representation from the Board of Trade at Calgary, Alta., recently appeared before the Grain Commission to petition the immediate establishment of government-owned terminal elevators on the Pacific coast to handle shipments from the prairies via the Pacific after the opening of the Panama Canal. The question of making Calgary a routing point for grain shipments was also

discussed. This concession would permit shipments to be held in Calgary 24 hours and then routed to any point, whereas, under present arrangements, a penalty attaches for holding grain in transit.

The Barnet & McQueen Co. of Fort William, Ont., has been awarded the contract for the government elevator on which construction has begun at Fort William. The amount of the tender is \$1,179,503. Parliament has made an appropriation of \$1,500,000 for the purpose. The structure is to be completed by September 20, 1913.

Sir Max Aitken, M. P., with a number of English associates, and R. B. Bennett, K. C., M. P., has purchased from Beiseker, Davidson & Strong the elevators of the Alberta Pacific Elevator Co., Ltd., the West Coast Grain Co., Ltd., and the terminals of the Globe Elevator Co., Ltd., 80 elevators in all. A total capacity of practically 3,000,000 bushels is involved in the transaction. The largest elevator purchased is the terminal of the Globe Elevator Co., Ltd., at Calgary, Alta., which has a capacity of 400,000 bushels.

EASTERN.

W. L. Palmer is building an addition to his grain shed at Medway, Mass.

T. H. Knight will build an addition to his grain house on Ocean street in Portland, Me.

The Eastern Grain Co. is building an extension, 40x75 feet, to its building at Pittsfield, Me.

Fred Scott has disposed of his grain business at Fairfield, Me., to Carl C. Piper and Ralph Pillsbury.

H. F. Gurney has let the contract for the erection of new elevator buildings at Honesdale, Pa. The structures will be principally of steel, concrete and brick.

The M. D. Stanley Co., recently organized at New Britain, Conn., is building an elevator, 52x38 feet and three stories high, and a one-story building, 25x52 feet.

The M. D. Stanley Co. has incorporated at New Britain, Conn., to engage in a wholesale and retail grain and feed business. The capital stock is \$15,000. The incorporators are M. D. Stanley and Samuel Welinsky of New Britain and Annabel Poster of Middletown.

A shortage in 70-foot piles in the market has necessitated a change in the plans of construction of the new grain elevator at Girard Point, Philadelphia. The engineers in charge of operations have conducted experimental tests which have proven that 60-foot piles will be long enough and these are being used.

The Canadian Pacific Railway has awarded a contract to the John S. Metcalf Co., Ltd., of Montreal, for the erection of a grain elevator of reinforced concrete at Portland, Me. It will have a capacity of unloading 160 cars in ten hours and of shipping to ocean vessels at several different berths. A plant for the generation of electric power was included in the contract. The structure will cost approximately \$500,000 and will be completed in time for the shipping season of 1913-1914.

THE DAKOTAS.

A new elevator is being constructed at Huff N. D. C. C. Cate is building an elevator at Bentley, N. D.

W. W. Archer is building an elevator at Munster, N. D.

Geisler Bros. have purchased an elevator at Grotton, S. D.

Two new elevators are being constructed at Cologne, N. D.

D. H. Ugland has purchased the Imperial Elevator at Knox, N. D.

The Imperial Elevator at McGregor, N. D., has been completed.

An Equity Elevator is being constructed at New Rockford, N. D.

The Van Dusen elevator at Raymond, S. D., has been completed.

The Columbia Elevator Co. is erecting an elevator at Bucyrus, N. D.

The Martin Grain Co. has disposed of its business at Martin, N. D.

W. J. Agnew's elevator at Bancroft, S. D., has been remodeled.

H. C. Dana has purchased the Farmers' Elevator at Bottineau, N. D.

The Bagley Elevator Co. has completed an elevator at Dupree, S. D.

John Gaborit is promoting the erection of an elevator at Fonda, N. D.

The new elevator at Simcoe, R. F. D. from Granville, N. D., is complete.

Captain Senechal is building an elevator at White City, near Nesson, N. D.

The Baldwin Grain Co., capitalized at \$10,000, has incorporated at Baldwin, N. D. The incorporators are C. B. Little, I. M. Capper and J. C. Anderson,

who have purchased the Dodge Elevator at this place.

The Farmers' Elevator Co. will erect a house at Romona, S. D., this fall.

J. A. Johnson has purchased the Reliance Elevator at Plankinton, S. D.

The Knox Grain Co. has leased the Blankenburg Elevator at Oakes, N. D.

The Western Grain Co. is building a 30,000-bushel elevator at Bentley, N. D.

A new Empire Elevator is under course of construction at Raleigh, N. D.

An independent elevator is under course of construction at Havelock, N. D.

James Bennett of Flandreau, S. D., is erecting an elevator at Oldham, S. D.

The Dakota Improved Seed Co. will build a new warehouse at Mitchell, S. D.

The Dakota Grain Co. has installed a manlift in its elevator at Frederick, S. D.

The Snyder Grain Co. at Nunda, S. D., has been succeeded by August Abraham.

C. A. Rychmond of Clark, S. D., has purchased the Bazar Elevator at Linton, N. D.

Kaesel Bros. of Richardton, N. D., have purchased the Barth Elevator at Mott, N. D.

Emil Schultz has purchased the Abraham & Schultz Elevator at Rutland, S. D.

A new elevator is being constructed at Timber Lake, S. D., for Simonson & Herman.

The Geo. C. Bagley Elevator Co. of Minneapolis is building an elevator at Dupree, S. D.

D. J. O'Connell has purchased elevator No. 2 of the Farmers' Elevator Co. at Ramona, S. D.

The Equity Elevator Co., recently incorporated, is building an elevator at Brantford, N. D.

The Farmers' Elevator Co. has purchased the McCabe Bros. Elevator at Nanson, N. D.

The South Dakota Elevator at Wolsey, S. D., has been thoroughly overhauled and repaired.

The Farmers' Union Elevator Co. has built an addition to its grain house at Henry, S. D.

Cullen Bros. of Leeds, N. D., have taken over the Dakota Farmers' Elevator at Coulee, N. D.

The Leola Equity Exchange has purchased the McIntyre-Freric Elevator at Leola, S. D.

The Farmers' Elevator Co. has purchased the St. Anthony & Dakota Elevator at Ray, N. D.

An elevator is being constructed at Sutton, N. D., R. F. D. from Binford, for R. M. Ellingson.

Plans are being formed for the establishment of elevators at Waltuga and McLaughlin, S. D.

M. E. Miller has leased the elevator at Highmore, S. D., formerly operated by Albert Durosch.

The Federal Elevator at Esmond, N. D., has been torn down and will be removed to a new town.

The Burgess Elevator Co. has sold its elevator at Northwood, N. D., to the Andrews Elevator Co.

The Farmers' Elevator Co. at Omamee, N. D., has installed a new cleaner and an automatic scale.

A 40,000-bushel elevator will be constructed at Zenith, N. D., by David Coutts of Belfield, N. D.

J. Kellogg of Courtney, N. D., has reopened the Osborn & McMillan Elevator at Kenmare, N. D.

The Cargill Elevator Co. has built a new engine house and remodeled its office at Geneseo, N. D.

C. B. Bartlett has leased a building at McIntosh, S. D., in which to engage in the grain business.

The Farmers' Elevator Co. has reorganized at White Lake, S. D., with Matt Gales as president.

The Minnesota Grain Co. has installed a new manlift and an Avery Scales in its elevator at McVie, N. D.

The Brown County Farmers' Elevator Co. is constructing a new 40,000-bushel elevator at Kidder, S. D.

J. A. Mullaney of Sioux City, Iowa, has acquired the South Dakota Central Elevator at Wentworth, S. D.

R. W. Wilkinson and J. E. Davis have let the contract for the construction of an elevator at Wing, N. D.

The Equity Farmers' Elevator Co. has purchased the elevator of the Atlantic Elevator Co. at Garrison, N. D.

The Rapid City Milling Co., Rapid City, S. D., is removing its elevator at Whitewood, S. D., to Fruitdale, S. D.

The Farmers' Equity Co. is building an elevator at Heil, Lawther Station, N. D., the contract price being \$7,536.

Arthur Reetz of Bridgewater, S. D., will erect a 15,000 to 20,000 bushel elevator at Betts, R. F. D. from Mt. Vernon, S. D.

A farmers' elevator and mercantile company has organized at Morrissetown, S. D., and is constructing a new 20,000-bushel elevator at this place. The incorporators are George Snook, C. A. Myers, F. R.

Ginther, George Wheeler, Julius Englehorn and P. R. Snyder.

The Rockham Farmers' Elevator Co. has purchased the Sleepy Eye Elevator at Rockham, S. D.

A. J. Murray has leased the Independent Elevator at Bath, S. D., formerly operated by the Independent Elevator Co.

The Farmers' Elevator at Trent, S. D., was recently sold at auction, R. H. Underwood securing the property.

H. A. Nicholas has built a new foundation under his elevator at Crary, N. D., and new spouting has been installed.

The J. J. Mullaney Elevator at Spencer, S. D., has been purchased by the A. A. Truax Grain Co. of Mitchell, S. D.

The Thorpe Elevator Co. has opened its elevator at Deisem, N. D., after two years' idleness. Leo Lundgren is agent.

F. C. Rector of Wahpeton, N. D., has purchased the elevator he formerly owned at Judd, N. D., and will operate it again.

The Osborne-McMillan Elevator Co. has torn down its office at Lidgerwood, N. D., and will erect a more modern structure.

H. C. Rice has purchased the elevator at Bryant, S. D., which has been operated by the Jones Grain Co. of Madison, S. D.

The Farmers' Elevator Co. has been incorporated at Des Lacs, N. D., by T. M. Williams, C. Cogdill and E. W. Mollenkopf.

The Equity Elevator Co. has taken over the Smith-Anderson Elevator at Berlin, N. D. The consideration was \$4,750.

The M. & N. Elevator at Churches Ferry, N. D., has been leased for the season by Winter, Truesdell & Ames of Minneapolis.

The Associated Farmers' Co-operative Club has purchased the Thorpe Elevator at Beach, N. D. The consideration was \$10,000.

L. B. Spracher & Co. of Sibley, Iowa, have purchased the grain business of Morland & Shuttleworth at Ben Clare, S. D.

Erick Erickson & Co. have purchased the Federal Elevator at Cooperstown, N. D. F. L. Barkee has been appointed manager.

A farmers' elevator and the Curlew Elevator have been constructed at New Leipzig, N. D., each having a capacity of 40,000 bushels.

The Farmers' Equity and Trading Co. has succeeded the Crown Elevator Co. at Turtle Lake, N. D. I. F. McGreevey is its manager.

The mixing house of the Farmers' Union Elevator Co. at Webster, S. D., will resume operations after necessary repairs have been made.

The Regan & Lyness Elevator Co. has built a new elevator at Heimdahl, N. D. A farmers' company has also constructed a grain house at this point.

A cupola has been constructed on the building of the Powers' Elevator Co. at Britton, S. D. A new office and engine room have also been erected.

The Equity Elevator and Trading Co. has let the contract for a 30,000-bushel elevator to be built at Williston, N. D. The structure will cost \$6,200.

The Farmers' Grain & Lumber Co. has taken over the elevator, coal sheds and lumber yard of the Bruce-Egerton Lumber Co. at Strandburg, S. D.

The Equity Elevator and Trading Co. has let the contract for a 30,000-bushel house to be constructed at Bremen, N. D., to C. E. Bird & Co. of Minneapolis.

The McKenyon Elevator at Sinai, S. D., has been purchased by Harry Zeller of Hetland, S. D., and will be put in operation again after a year of idleness.

R. D. Johnson and others have organized the Johnson Elevator Co. at Mohall, N. D., where they have purchased the Minneapolis and Northern Elevator.

A farmers' elevator company is organizing at Glen Ullin, N. D., and will purchase the Golden Valley Elevator, which has a capacity of 35,000 bushels.

The Equity Grain and Mercantile Co. has installed a new engine in its elevator at Driscoll, N. D. Also, the coal sheds and warehouse have been enlarged.

Lee Bros. have built an addition to their elevator and feed mill at Walhalla, N. D., which has increased the capacity to 25,000 bushels. They will handle all kinds of grain this year, including flax and rye.

The Knife River Lumber and Grain Co. has incorporated at Krem, N. D., with a capital stock of \$50,000. J. E. Stephens of Stanton, N. D., L. G. Eastman and C. N. Janzen of Krem are the incorporators.

The Farmers' Elevator Co. has incorporated at Buffalo Springs, N. D., with a capital stock of \$20,000. The incorporators are Henry Kern, James J. Joice, C. H. Hesterkind and Geo. Olstad, all of Buffalo Springs; Andrew Senty and Geo. Silvius, of

Mineral Springs and Chas. Kelner of Stillwater, Minn.

The Mott Equity Exchange is building an elevator at Mott, N. D., the contract price of which is \$8,789. Fairbanks-Morse machinery will be used.

Daniel Haffey and others have organized the Independent Elevator Co. at Tower City, N. D., and have purchased the Monarch Elevator at that place.

The Hansboro Grain Co., capitalized at \$25,000, has incorporated at Hansboro, N. D. A. C. Anderson, J. W. F. Johnson and J. D. Leftwich are the incorporators.

The Leith Equity Exchange has incorporated at Leith, N. D., with a capital stock of \$20,000. J. I. Cahill, Wm. Kamrath and Bennett Cooley are the incorporators.

The Independent Grain Co. has incorporated at Tower City, N. D., with a capital stock of \$15,000. The incorporators are A. B. Shaw, F. L. Rice and A. F. Sherman.

The Drayton Farmers' Elevator Co. has incorporated at Drayton, N. D., with a capital stock of \$10,000. Nels Tacklind, J. B. Hullum and others are the incorporators.

It is reported that Julius Holst of Gladstone, N. D., is planning the establishment of a line of elevators on the new N. P. line in Mercer and Dunn counties next year.

The Nye, Schneider, Fowler Co. is erecting a 22,000-bushel elevator at Colome, S. D. Also, Gaskill Bros. are constructing a grain house of the same capacity at this point.

L. A. Arbogast of the Dawson Grain Co. recently selected a site at Stanton, N. D., for the erection of an elevator. The Powers Elevator Co. is also building a house at this place.

The Farmers' Elevator Co. is erecting a 35,000-bushel elevator at Dundas, near New Rockford, N. D. W. W. Treffry is president and John Dodds is secretary of this company.

The Russell-Miller Milling Co. contemplates the erection of two elevators at Minot, N. D., to replace the one recently destroyed by fire. The total capacity will be 150,000 bushels.

The Equity Elevator and Trading Co. has incorporated at Berlin, N. D., with a capital stock of \$20,000. The incorporators are Jack Sheckman, George Young and F. W. Young.

The Regent Equity Exchange has incorporated at Regent, N. D., with a capital stock of \$15,000. H. W. Gibson, J. H. Marks, E. H. Koenker, Mons Nelson and Walter Newby are the incorporators.

C. T. Wypkop, former manager for the Russell-Milling Co. at Bismarck, N. D., is promoting the organization of a farmers' company at Bismarck, N. D. The company will be capitalized at \$4,000.

The Guthrie Farmers' Elevator Co. has incorporated at Guthrie, N. D., with a capital stock of \$10,000. The incorporators are John Beutler, Otto Boelow and J. A. Carlson, all of Drake, N. D.

A. E. Ireland & Co. is constructing a two-story addition, 20x40 feet, to the elevator recently purchased from the Osborne-McMillan Elevator Co. at Carrington, N. D. It will be used as a grain cleaning house.

The Royal Elevator at Fessenden, N. D., has been torn down and moved to Tuttle, N. D. This house was purchased by the Regan & Lyness Elevator Co., which is erecting a number of new elevators in North Dakota.

The Montpelier Farmers' Elevator Co. has incorporated at Montpelier, N. D., with a capital stock of \$20,000. The incorporators are Jules Naze Sr. and F. E. Stott of Montpelier and Alf. Schollander of Jamestown, N. D.

E. R. Freeman has secured a third interest in the elevator at New Leipzig, N. D., formerly known as the Begley Elevator. It will be known in the future as the Steinkopf, Rusch & Freeman Elevator. Mr. Freeman will act as manager.

The Strong-Scott Manufacturing Co. of Minneapolis has installed an Automatic Balancing Controllable Sifter manufactured by the Great Western Manufacturing Co. of Leavenworth, Kan., in the plant of the Dakota Grain Co. at Edgely, N. D.

The Von Seggern Bros. & Utz Co., capitalized at \$12,000, has incorporated at Wood, S. D., to engage in the elevator and lumber business. Fred H. Von Seggern, Carl D. Von Seggern of Gregory, S. D., and Karl Utz of Wood are the directors.

The Farmers' Elevator Co. has incorporated at Karlsruhe, R. F. D. Balfour, N. D., with a capital stock of \$10,000. The incorporators are Jacob Gefroh Sr., Nick Abel, Wendelin Black, Christian Morek, Peter Lehnertz, John Heilman and Michael Wald.

The Fullerville Grain Co. has incorporated at Fullerville, R. F. D. from Gayville, S. D., with a capital stock of \$20,000. The incorporators are A. L. West, J. C. West and C. R. Kerr. The company will do business in Fullerville and Mission Hill, S. D.

The Braddock Elevator Co. has incorporated at Braddock, N. D. The incorporators are L. M. Doerschlag, J. D. McCusker, O. M. Vie, F. M. Long, J. J. Ryan and H. W. Allen. The company has pur-

chased the elevator formerly owned by the Minnesota Western Grain Co.

Farmers in the vicinity of Hitchcock, S. D., have organized a co-operative grain company to establish an elevator at this place. A site for the building has been secured. The incorporators are A. J. Glicklen, A. H. Farrier, Emil Buckholze, C. C. Wieting, Charles Boorse and J. F. Bibler.

The Sentinel Butte Farmers' and Trading Co. has been incorporated with a capital stock of \$50,000. The incorporators are J. A. Kitchen, Walter A. Shear, John G. Odand, J. H. Stecker, W. Y. Barnett, G. C. Nelson and Charles A. Lundin. The company will erect an elevator at Sentinel Butte, N. D.

WESTERN.

A new elevator is being constructed at Vona, Colo.

The Montana Central will build an elevator at Dover, Mont.

Henry Coulbrough has disposed of his business at Tacoma, Wash.

The new Farmers' Elevator at Polson, Mont., has been completed.

W. F. Hoag & Co. are constructing a new elevator at Rosebud, Mont.

The new Imperial Elevator at Glasgow, Mont., has been completed.

The J. C. Kinney Elevator Co. will erect an elevator at Hodges, Mont.

An addition is being built to the M. J. Dunn Elevator at Froid, Mont.

The Rocky Mountain Elevator Co. is building an elevator at Great Falls, Mont.

A new elevator has been completed at Ismay, Mont., for the Farmers' Elevator Co.

The Farmers' Elevator Co. has completed a 30,000-bushel elevator at Twin Bridges, Mont.

The Stanford Farmers' Elevator Co. has completed its new house at Stanford, Mont.

The elevator at Wibaux, Mont., has been purchased by the J. C. Kinney Elevator Co.

The Oakley Mill & Elevator Co. has incorporated at Oakley, Idaho, with a capital stock of \$15,000.

The Rocky Mountain Elevator Co. of Great Falls, Mont., will erect an elevator at Lewistown, Mont.

The W. O. Kay Elevator Co. will equip its elevator at Rexburg, Idaho, with a Hall Special Elevator Leg.

A new elevator has been completed at Terry, Mont. Martin O'Loughlin will manage the business.

The Montana & Dakota Elevator Co. is constructing elevators at Nashua, Wolf Point and Brockton, Mont.

The Shelby Commercial Club is promoting interest in the establishment of an elevator at Shelby, Mont.

The Farmers' Elevator Co. has purchased the St. Anthony & Dakota Elevator at Froid, Mont., for \$6,000.

The Farmers' Elevator Co. will erect an elevator at Glendive, Mont. C. R. Schain is manager of the company.

Peterson & Lewis, who operate a string of elevators in Montana, are constructing a house at Cut Bank, Mont.

E. J. Lamb has engaged in the grain business at Burns, Wyo., under the name of the Independent Elevator Co.

The Hobson Farmers' Elevator Co. has completed its new house at Hobson, Mont. W. J. Davidson is the manager.

The Flathead Lake Transportation Co. will build an elevator at Bigarm, Mont. William Hennessy will manage it.

The Trans-Mississippi Grain Co. installed Hall Signaling Distributors in its elevators in Alexander and Arimo, Idaho.

The Rocky Mountain Elevator Co. will construct its seventh new elevator at Rossfork, a new town near Moccasin, Mont.

A new elevator has been completed at Ryegate, Mont., for the Montana Elevator Co. Irvin Blocher will manage the plant.

The M. H. Hauser Co. of Portland, Ore., has purchased Lippitt Bros' warehouse at Diamond, Wash., which has a capacity of 90,000 bushels.

The Farmers' Elevator Co., capitalized at \$10,000, has incorporated at Valier, Mont. E. E. Leech, C. H. Kester and Permillia Kester are the incorporators.

W. M. Duthie has built an addition, 43x100 feet, to his warehouse at Troy, Idaho. He now has 16,272 square feet of floor space for the storage of hay, grain, etc.

The Colorado Mill and Elevator Co., Denver, Colo., is building a line of elevators at Lamar and Holly, Colo.; at Anthony, Hollister, Hansen, Sugar City, American Falls and Parma, Idaho. The Wolf Co. of Chambersburg, Pa., has received the contract for

the steel elevators, power connections and other machinery through its Kansas City office.

Promoters are agitating the construction of an elevator at Douglas, Wyo., to handle the large crops that have resulted from the irrigation system in that district.

Thomas Hand of the Kalispell Flour Mills and Mr. Sherwood of the Royal Milling Co. recently visited Dayton, Mont., to consider the feasibility of locating an elevator at that point.

The Farmers' Elevator Co. has incorporated at Nashua, Mont., with a capital stock of \$5,000. The incorporators are T. P. White, Glen Mahugh, Victor Johnson, J. R. Murphy, Vead McQuigg, J. H. Jones and A. J. White.

Morris & Houtz are constructing an elevator and a warehouse at Rockland, Idaho. The elevator will be 26x36 feet, three stories in height and will have a capacity of about 12,000 bushels. The warehouse will have a capacity of 35,000 bushels.

The Farmers' Elevator Co. has perfected an organization at Medicine Lake, Mont., which will incorporate for \$10,000. Emil C. Umbreit is president and George A. Richwine is secretary and treasurer. The erection of an elevator will begin at once.

The Farmers' Elevator Co. has incorporated at McCabe, Mont., with a capital stock of \$25,000. The incorporators are Ole P. Olson of McCabe, Nels Nelson, W. J. Hardier and Samuel J. Berry of Froid, Mont., and W. C. Adams of Enterprise, Mont.

The Tiedemann Mercantile Co. has been incorporated at Ordway, Colo., by H. C. Tiedemann, Ernestine Tiedemann, Ernest F. Greene, Anna Greene, Doris Greene, Fred Rohl and Ray Cook. They will conduct a hay, grain, lumber, coal and ice business.

The Columbia River Milling Co. recently purchased the elevator and warehouse formerly owned by the Farmers' Grain & Supply Co., at Wilbur, Wash. The elevator has been moved and connected with the mill, and an addition has been constructed to increase the storage capacity.

The Leitch Grain Co. of Malden, Wash., has taken over all the warehouses formerly operated by the Turner Warehouse Co. and all of the McDonald & MacBean houses located on the C., M. & P. S. There are 16 warehouses in all, which will be managed by G. R. Patterson, whose headquarters are at Malden.

The Farmers' Elevator Co., recently incorporated for \$20,000, at Townsend, Mont., has taken over the Hawkeye Elevator at this place and elected Frank Bowen as manager. C. W. Burgess is president of the company and Guy Kirscher is secretary-treasurer. A. W. Finch, who has been operating the Hawkeye Elevator under lease, is erecting a new elevator which is practically complete.

[Special Correspondence.]

TRADE NEWS FROM TOLEDO AND OHIO.

BY E. F. BAKER.

TOLEDO, O., Sept. 10.—A short time ago Toledo millers were all worked up over the wheat situation and there was a pessimistic tone about milling establishments, everybody seeming to be sure that there would never be enough wheat to go around. During the past month the situation has cleared considerably, and it is now the general belief that there will be plenty of wheat for everybody. The local millers are of course somewhat handicapped because of the extreme high prices which prevail on the Toledo market, owing to the single-grade standard maintained here. Prices continue to soar around in the skies, and quotations in Toledo are several cents in advance of Chicago, but all fears that enough good wheat to take care of Toledo milling interests will not be forthcoming have been dissipated. It takes nearly 50,000 bushels of wheat a day to take care of Toledo mills, when all are running full capacity. New wheat coming in from the Northwest is of splendid quality, and Toledo has now stored away 10,000,000 bushels of wheat, most of which is No. 2 Red, old wheat, running 62 pounds to the bushel. This does not look like starvation by any means.

During the past week receipts have been good, about 350,000 bushels coming in in two consignments, the bulk by lake. Most of this is soft winter wheat from Chicago, and is being brought into the Toledo market to take care of September deliveries, as local wheat is extremely hard to get, what little there is offered being snapped up on sight by the interior mills. For the most part what wheat is coming in from Chicago is last year's wheat, outside of what is being purchased for storage purposes. Referring to the milling situation David Anderson, the largest winter wheat miller in the Middle West recently said: "We are sold ahead practically to the holidays and every pound of the flour sold is to be used in the United States. I believe that millers will have the best year known to the trade. Those who were in position to take on large amounts of soft wheat will be the ones to make the most money. Every large miller has bought wheat freely, while the small ones who were able to purchase only moderate amounts will in turn be obliged to pay higher prices for the soft winter later in the season. We

do not care whether we ever sell another pound of flour to go abroad as ocean freights favor the raw material and are against the manufactured article. The present crop of soft winter wheat came in time to fill up many empty bins and it commenced to move in time for millers to meet some of their bookings, part of which were made while the grain was being threshed. All sections of the country are buying flour and buyers show no disposition to tarry whenever millers are ready to meet them half way." All the local mills are operating at the present time, but only at about half capacity.

Wheat receipts during the past week, including the old wheat for September deliveries, amounted to 402,000 bushels, the shipments being light and amounting to but 77,200 bushels. The market closed today with cash wheat marked up to \$1.08. Fall plowing is about completed in this section, with an average acreage.

The corn situation does not look nearly so bad as it did. The scorching weather of the past couple of weeks has been the best of corn weather and under its influence the corn crop has bettered almost a hundred per cent. If this condition should prevail for a little longer, the corn crop will be in fine shape and in a measure redeem the wheat failure. The Miami County corn crop, from present indications, will be a bumper and the quality thus far seems fine. Corn has flourished especially well in Preble County, and there are some farms in that section where the stocks have grown 18 feet in height, with the ears out of reach of the ordinary man—a veritable "Jack o' the bean stalk." The prospects for corn in most sections of the state are good if conditions remain as now.

Corn receipts during the past week amounted to 40,500 bushels and shipments 21,600 bushels. Cash corn was quoted at 82 cents when the market closed today.

Oats proved a good crop and despite the scare caused by heavy and inopportune rains, the crop will come out in fair shape. Quite a bit of oats were injured but on the whole the oats crop has been a saving one. Oats have been coming into the market with considerable freedom, last week's receipts amounting to 599,500 and shipments to 230,300 bushels. The local quotations on cash oats when the change closed today was 36 cents. Unless conditions change materially, there is little to worry over in present conditions and few local grain men seem to be losing their beauty sleep.

The Bankers' Association of the state at a recent meeting agreed to make an effort to induce members of the association owning farms to make them models of progress and encouragement to other farmers. A committee was appointed with instructions to investigate ways and means for obtaining increased production of the cultivated lands of the state. The committee spent a day recently with Sec'y A. P. Sandles, of the State Board of Agriculture, going over this proposition. It was stated that the records show that 142,000 acres of land once under cultivation has been abandoned as farms. Practically all of these, according to Mr. Sandles, are ideally located for fruit culture. It was decided to ask bankers all over the state to organize by counties to stimulate interest in better farming methods, a greater diversity of crops, scientific methods, more fruit culture and the production of crops of a higher grade. Should this go through, the plan would be to stimulate the principal crop or industry of each county by the introduction of scientific methods and the successful carrying out of the method.

John W. Hahn, for many years prominent in the grain commission business in Toledo, and until recently president of the Ohio Millers' Fire Insurance Company, died a few days ago at his Bancroft Street residence, aged 69 years. He was a resident of Bucyrus, O., where he was engaged in the grain and milling business until 28 years ago, when he came to Toledo, where he has since resided. His wife and daughter, Mrs. Jefferson D. Robinson, survive.

A meeting of Ohioans interested in farming will be held at Columbus on Saturday (14th) in the interest of the American Land and Irrigation Exposition, which will be held from Nov. 15 to Dec. 2 in New York. Gilbert McClurg, general manager of the Exposition, will be present and explain the object of the Exposition. Last year Ohio was not represented at this Exposition and Sec'y Sandles of the State Board of Agriculture is attempting to interest Ohio farmers in the proposition. The object is to show Americans and immigrants who have been farmers in other lands what this country can and does produce.

Seneca County sent in its first new wheat for the year Saturday when C. A. Swope appeared at the City Mills with his produce. The yield was very light, not averaging over five or six bushels to the acre, and beside was badly shriveled. William Turley brought in the first oats, which yielded about 70 bushels to the acre. Seneca County corn prospects are not bright, as the corn had a poor start and was then visited by a hail storm that literally riddled the plants.

John N. Doty boasts the banner yield of oats in

Hancock County, having 23 acres which show an average yield of 96½ bushels to the acre. The oats are of Canadian variety and very heavy.

When Bud Horton, a negro chauffeur, was stricken with an epileptic fit on the street a few days ago. Mrs. Fred Jaeger, wife of the prominent grain man, had a narrow escape from serious injury. The car ran wild at the corner of Madison Avenue and Superior Street and dashed into another machine in front of the Gardner Building. Both machines were damaged by the impact, but the occupants were practically uninjured. Hundreds of pedestrians viewed the accident.

Allen E. Edwards, of McGuffey, Hardin County, experimented this year by cultivating a 20-acre tract of hemp. The cost per acre was \$50 and Mr. Edwards has been offered \$175 an acre as it now stands. The crop is a large one for the acreage put in and is said to be of finest grade. This will open up a new opportunity for those owning the rich Sciota marsh lands of Hardin County, which have long been famed for its great onion production.

Jerome Rhinehart and Ethel McDougale, ten and eleven-year-old children, were playing recently at the Rhinehart grain elevator at Uniopolis, O., when a small elevator was released in some manner and shot upward to the roof carrying the children with it. The force of the blow when the elevator struck the top broke the safety rope and the elevator dropped a swift 60 feet. The children were found later unconscious, in which condition they remained for several hours. No bones were broken and it is thought there will be no serious results.

Florenz Garmhausen, president of the Lock Two Grain and Milling Company, died at his home in St. Marys, O., recently, as the result of a sun-stroke. He was aged 54 years.

J. P. Hanna, of Pioneer, O., was a recent visitor on 'Change. Mr. Hanna says that corn presents a fine appearance in Williams County. But little oats has thus far been cut in this county and some fears are entertained of excessive rains. There has just been enough rain to take care of the corn situation.

Because of the success of the Boys' Corn Growing Contest put on by the State Board of Agriculture this year, it has been decided to try a wheat growing contest for next year and a campaign will soon be started to secure 5,000 to enter this contest. The Ohio State Millers' Association, the Ohio Grain Dealers, Ohio bankers and business men have pledged their support for this cause. It is desired to make Ohio a great wheat growing state, and it is believed this can be done by educating the young in scientific farming. A free trip to Washington is the prize to be offered.

The National Milling Co. has received 1,500,000 bushels of soft winter red wheat from Chicago during the past 60 days.

The Pioneer mill plant is to be enlarged to three times its present size. A hydro-electric plant of 300 to 500-H.P. will be erected.

George Watkins, well-known Chicago grain man, who died recently, was formerly well known in local grain circles, where he was one of the leading factors prior to his removal to Chicago.

Toledo is just now in the midst of a rate war with the railroads, and shipping interests of all kinds are interested and taking active part in the dispute. The grain interests are touched perhaps as strongly as any other and F. O. Paddock, of the Paddock-Hodge Co., has been appointed by the Toledo Produce Exchange to represent the grain interests in the matter. Toledo is asking for reshipping rates the same as is had by similar markets, including Chicago. This is a fight which has long been waged and the railroads have consistently refused to make the concessions demanded. The matter will be taken before the state commerce commission at the earliest possible moment, application for a hearing having already been made.

[Special Correspondence.]

GRAIN ELEVATOR AT PHILADELPHIA.

BY E. R. SIEWERS.

The modern 1,000,000-bushel grain elevator at Girard Point along the Delaware River is in sight, for the Pennsylvania Railroad Company has just let the contract to James Stewart & Co. of Chicago, who constructed the Grand Trunk Pacific Railway Company's elevators at Fort William, which have a total capacity of 3,500,000 bushels. Although the Philadelphia elevator will be more of an inland plant, yet in some respects it is stated that it will conform to the Fort William system. A contracting firm of this city will erect the concrete pier.

The elevator will be finished in time to catch the corn crop of 1913, as it will take almost a year to complete it in every detail. It will be built in the most approved manner and fitted up with the very latest improvements as to appliances, and in the practical workings will be one of the finest and most substantial structures of its class in the country. It will be located about five hundred feet inward from the bulkhead line of the river.

For the shipping of grain a conveyor gallery, from the elevator, extending to the end of the pier, will be one of the principal features. This gallery will contain four conveyor belts, each having a 15,000-bushel capacity per hour, the total hourly capacity of the elevator being rated at 60,000 bushels of grain. At least one hundred and fifty cars of grain can be unloaded during a period of ten hours.

Besides the work of construction on the elevator proper a yard capable of receiving 250 cars or upward will be made. The pier of reinforced concrete, which is to be 500 feet in length, will furnish ample support for the conveyor gallery. In addition a dock will be dredged 1,000 feet long and of sufficient depth to accommodate the largest vessels.

As arranged by the plans which have been under preparation for months to cover every possible need, there will be a working house of 200,000 bushels' capacity, which, if found expedient at any time, can readily be doubled without entailing any very great cost as to machinery or causing any material attention or inconveniences to the general plant. Six elevator legs will be built in the elevator, and six grain cleaners of the Invincible type are to be installed. Each leg will have a capacity of 15,000 bushels an hour. A drier to be used in treating damp or moist grain will contain an equipment of the largest size, erected in conjunction with the main building. All the storage bins will be of circular shape 16 feet in diameter, and 85 feet deep, the circles forming intermediate bins to hold small parcels of grain. The completed cost of the elevator and its appointments will be fully \$1,000,000, and this up-to-date plant will form an important trade link in the general improvement of the rivers and harbors about the port of Philadelphia which are now going on and in contemplation.

A big delegation from here will attend the Grain Dealers' National Convention in Norfolk the first week in October.

Oats are coming in pretty lively and one large invoice had to be turned over from the Pennsylvania to the Philadelphia & Reading elevator owing to a temporary lack of room.

The hay men here are divided upon the question of the necessity of the railroad warehousing companies which have ordered the storage time cut in half so as to keep the cars moving and prevent congestion, overstocking and possible embargoes as to hay and straw. Chairman William E. Huey of the Commercial Exchange committee is trying to get the matter settled or a rescinding of the rules, while Treasurer J. W. Beatty, who still keeps his weather eye on the hay business, insists that the hurry-up order is the best thing that ever happened the hay trade.

Until further notice corn will be admitted to Mexico duty free.

The price of Washington penitentiary grain bags has been reduced to 10c each.

C. S. Odell of Kansas City has been appointed grain inspector at Port Arthur, Texas, the commission coming from the Board of Trade.

A new cotton pest has appeared in Texas, a leaf caterpillar that has appeared in several counties. The extent of the damage is not reported.

On September 3 Minneapolis had 1,925 cars of grain on track, of which 1,422 were wheat, thus beating any previous "after Labor Day" record.

In order to take care of an expected heavy movement of grain over the holidays part of the Illinois state grain inspection department worked on Labor Day.

In August New Orleans exported 192,000 bushels of wheat to Liverpool and Rotterdam, and 202,808 bushels of corn and 12,421 bushels of oats to Latin America.

The Government recently collected \$34,000 in duties on smuggled grain in Minneapolis, but no names of the smugglers are given because "no criminal intent was proved against them!"

H. Kaufman and E. E. Goyle, grain dealers at Wichita, Kan., have brought suit against the Wichita Terminal Co. for \$18.98, which loss is claimed to have resulted from shrinkage in a car of wheat shipped across town from the stock yards to the Watson Mills in Wichita.

The Little Rock, Ark., Board of Trade will contest the operation of transit rules lately put into effect there, and on August 16 appointed T. H. Bunch, G. F. Williams and Jos. Daniel a committee to frame a telegraphic protest to the Commerce Commission. The complaint is that under the rules Little Rock has to furnish identical tonnage for out billing.

New Orleans for the year ended August 31 exported 733,570.40 bushels of wheat, 4,139,956.38 bushels of corn and 5,177 bushels of oats. The bulk of the wheat went to Hamburg (162,038.40 bushels), Liverpool (152,000 bushels), and to Latin America (323,532 bushels). Of the corn 691,508.42 bushels went to Liverpool and 2,064,624 bushels to Latin America.

COMMISSION

John F. Mooney, formerly with Farson, Son & Co. of Chicago, is now associated with Ware & Leland, Chicago.

F. M. Rogers of Lamson Bros. & Co., who has been on the sick list for several months, returned on September 11.

Kent Barber of Ft. Worth, Texas, has retired from business there and is now associated with Simon-Shields Grain Co., Kansas City.

S. F. Clark has purchased the interest of J. D. O'Brien in the firm of O'Brien & Martin of Winnipeg, Man., and the firm is now Clark & Martin.

Spencer Kellogg & Sons, Buffalo, have incorporated; capital, \$6,000,000; directors, Spencer Kellogg, Spencer Kellogg, Jr., and Howard Kellogg.

J. G. Brady, a prominent grain man of South Dakota, has engaged in the grain business at Minneapolis, Minn., with office at 314 Flour Exchange Building.

The Ft. Worth Elevators Company of Ft. Worth, Tex., has opened an office in Wichita, Kan. P. J. McMullen, formerly with the Empire Grain Co., has charge of the office.

The Norfolk Grain Co. of Norfolk, Va., has been incorporated. S. D. Scott is president of the company; W. C. Duncan, vice-president, and B. C. Stell, secretary and treasurer, all of Norfolk.

The Jacksonville Grain and Commission Co. of Jacksonville, Tex., has been organized with a capital stock of \$10,000. The incorporators are Ira T. Shotwell, John Howard and T. E. Acker.

Hallet & Carey Co. of Minneapolis, Minn., has established a branch grain office at Winnipeg, Manitoba, under the style of Hallet & Carey Co., Ltd. It is under the management of William Hunter.

Ernest A. Woodward of Minneapolis, Minn., who has been engaged in the grain business in that city with his father, A. M. Woodward, has removed to Winnipeg, Man., and will carry on a grain business in that city.

The E. B. Brown Company of Milwaukee, Wis., has filed articles of incorporation with capital stock of \$5,000 to conduct a flour, feed and grain business. The incorporators are Edward B. Brown, May L. Brown and Lulu H. Brown.

The Toledo Produce Exchange, the Lucas County Agricultural Association, Frank J. King and the Pilliod Milling Co., it is announced, will finance the trip to Washington, D. C., of twenty-five boys who are successful in the corn growing contest in Lucas County, Ohio.

O. C. White of P. H. Schifflin & Co., Chicago had the misfortune of having his arm broken in a recent automobile accident near El Paso, Ill. He was taken to the Brokaw Hospital at Bloomington, where his injuries were cared for, and last week was able to come to Chicago.

Any grain dealer who chanced to attend the Franklin (Ohio) County Fair races or the Findlay or other races in Ohio could have seen the speedy mare, Judith Wilkes, that can step a mile comfortably in about 2:15. Judith Wilkes is owned by H. S. Grimes of Portsmouth and is trained and raced by A. F. Ault.

Fagg & Taylor of Milwaukee, Wis., who have been operating the St. Paul Elevator "B" for several years, have leased Elevator "E" on that road. This latest addition to their facilities has a capacity of 1,000,000 bushels and will enable them to handle about 50 per cent more grain than they were able to do at Elevator "B."

The E. C. Butz Grain Co. of 601 Gaff Building, Chicago, has entered into the grain commission business under the direction of Emil C. Butz. The energies of its staff will be devoted to the proper and efficient handling of cash grains. Barley, of which Mr. Butz has made a special study for years, will have his personal attention.

William Hunter, formerly of Nye, Jenks & Co., Minneapolis, has settled in Winnipeg and is manager there for the Hallet & Carey Co., grain dealers, Minneapolis and Duluth. It is the intention to carry on a general grain commission business. Mr. Hunter is a native of the island of Lewis, Scotland, and has been in the United States for many years.

The co-partnership heretofore existing between William M. Richardson and Edward M. Richardson as Richardson Brothers, the Bourse Building, Philadelphia, Pa., has been dissolved. William M. Richardson will engage in business at the same address under the name of Richardson Brothers and Edward M. Richardson will engage in business at No. 460 The Bourse under his own name.

The McLean County Grain Co. of Bloomington, Ill., has been organized to take over the Bloomington office of Finley Barrell & Co. of Chicago and act as their correspondent. They will also do a general cash business. Offices are at 309-311 Livingston Building. J. W. Probasco is president of the company; A. B. Means, treasurer, and Jesse Simpson, secretary.

THE EXCHANGES

The St. Louis Merchants' Exchange is talking of revising weighing charges, but nothing has as yet been agreed upon.

The Toledo Produce Exchange has recommended to the Council of Grain Exchanges the establishment of a credit bureau.

Winnipeg has adopted a rule that track-buying firms must pay their country agents a salary of not less than \$50 and no commissions.

The members of the Chicago Board of Trade are again discussing the project of erecting a new exchange and office building on the present site.

The Minneapolis Grain Commission Men's Association has appointed a committee to report on a method of handling transit bills in that market.

The name of the Pittsburgh exchange has been changed from "Grain and Flour Exchange of Pittsburgh" to Grain and Hay Exchange of Pittsburgh.

Kansas City Board of Trade has voted down a proposed rule to restrict the number of market quotations sent to the country, by a vote of 75 ayes to 68 noes, two-thirds being required to pass.

The Fort William Chamber of Commerce, Ltd., has incorporated at Fort William, Ont., with a capital stock of \$500,000. The incorporators are George A. Graham, James Murphy, E. R. Wayland, J. P. Jones and A. D. Stewart. The company will construct a seven-story grain exchange building.

A rule has been adopted at Winnipeg that will deal with any member of the Exchange who "shall be a shareholder, officer, or employee of any joint stock company or a member of any partnership, which company or partnership (whether a member of this Exchange or not) shall fail to comply with the by-laws of the Winnipeg Grain Exchange."

By a vote of 125 to 28 on August 25, members of the Kansas City Board of Trade adopted an amendment to the rules which permits the delivery of wheat in carlots on track within the city limits on sales for future delivery. The fact that a very large long interest exists there, more than equal to the available public storage, had alarmed the trade, and accounts for this action.

The Duluth Board of Trade has adopted an amendment to the rules substituting the rule now in practice on the Chicago Board of Trade of penalizing defaulters on contracts, known as the anti-corner bill. The rule proposed at Duluth provides a penalty of not less than 3 nor more than 10 per cent as damages over and above the true commercial value of the commodity as determined by a special committee.

As here noted in the August issue, Edward E. Felkel of the Missouri Commission Co., St. Louis, was on August 7 suspended from the Merchants' Exchange for one year, beginning November 16, the cause being an article in a trade paper which the directors held to be "detrimental to the welfare and progress of the exchange." To this charge Mr. Felkel's attorney pleaded honest and justifiable criticism; for Mr. Felkel will resist the order of suspension.

The Chicago Board of Trade on Aug. 22 kept open house for and entertained the surviving veterans of the several regiments equipped by the Board in 1862 and known as "Board of Trade Regiments." These were the 72d, 88th and 113th Ill. Vol. Inf. and the Board of Trade Battery. A Grand Army button admitted the wearer to the floor, and at 5 o'clock there was a march of the survivors around the hall, after which a banquet was served in the visitors' room. About 300 members and guests were served.

MILWAUKEE EXCHANGE ITEMS.

The banquet tendered to the survivors of the 24th Wisconsin Volunteers on the evening of Sept. 5, on which occasion the veterans were the guests of the Milwaukee Chamber of Commerce, was marred by the death of Lieut. Gen. Arthur MacArthur, who passed away while delivering his address. Capt. E. B. Parsons, for many years a member of the Chamber, who was presiding at the banquet, was stricken and is reported to be suffering from a slight stroke of paralysis. Lieut. Gen. MacArthur left for the front on September 5, 1862, as an adjutant in the old Chamber of Commerce Regiment, and died on the fiftieth anniversary of that date as a retired lieutenant-general of the United States Army.

The steamer "Schlesinger," loaded with 50,000 bushels of new barley, sailed for Buffalo on August 3. This is believed to be the first cargo of new barley shipped down the lakes this year. The shipper was the Morris-Parry Grain Co.

Interest on advances under the rules of the Chamber of Commerce has been fixed at the rate of 6 per cent for the month of September.

An arrangement has been made with the C. M. & St. Paul Ry. Co., operating Elevator "A," whereby warehouse receipts will be issued for No. 1 and No. 2 Northern wheat which is subject to dockage for the net amount of cleaned wheat, in accordance with the dockage determined by the inspection de-

partment. Wheat delivered out on such receipts will be for the amount of cleaned wheat, equal to the face of the receipt. Across the face of receipts for grain placed in the elevator for special bin storage the elevator office will stamp the words "Special Bin," and upon receipts for grain for regular delivery on contracts will be stamped the words "Regular Delivery." On wheat of the contract grades placed in "Special Bin" a receipt will be issued showing the grade of the wheat and the amount of the dockage placed upon it by the inspection department.

The Milwaukee County School of Agriculture and domestic Economy, located in Wauwatosa, Wis., recently completed, has opened up its school year with a large attendance of pupils.

NATIONAL CHAMBER OF COMMERCE.

The National Chamber was organized on April 22 and now has more than 77,000 business men of the nation affiliated with it through 102 different organizations, covering 29 individual states and the Hawaiian Islands. The Chamber of Commerce of Alexandria, Va., with 52 members, is the smallest local organization that has so far joined; the Chamber of Commerce of Boston, Mass., with 4,609 members, is the greatest.

The detail work of the Chamber is being carried on by General Secretary Elliot H. Goodwin, formerly secretary to the National Civil Service Reform League; Field Secretary Edward E. Trefz, formerly advertising counselor to the Painted Display Advertising Association of the United States; Assistant Secretary D. A. Skinner, formerly assistant chief, Bureau of Manufactures, Department of Commerce and Labor; Chief of Editorial Division and Editor of "The Nation's Business" G. Grosvenor Daws, formerly managing director of the Southern Commercial Congress.

INTERNATIONAL COMMERCE CONGRESS.

The sessions of the Fifth International Congress of Chambers of Commerce and Industrial Associations will begin at the Copley-Plaza Hotel, Boston, on the morning of September 24, 1912, and continue for two days after.

The program of the congress has been published in sixteen languages. The opening address of welcome will be delivered by Hon. Charles Nagel, Secretary of the Department of Commerce and Labor. From present indications the delegates to the congress will be in excess of 700. From foreign countries acceptances have already been received from 416 delegates, representing forty foreign countries. The delegates already appointed from the various commercial organizations of the United States number 200.

On Monday, September 30, the delegates from abroad will leave on special trains. They will be entertained by the business men of the following cities: Worcester, Buffalo, Niagara Falls, Detroit, Chicago (Oct. 4-7), Cincinnati, Dayton, Pittsburgh, Washington, Philadelphia and New York city. This tour will officially end at New York city about October 18 to 20.

CHANGES IN EXCHANGE MEMBERSHIP.

Chicago.—Sec'y Merrill reports the following changes in the membership of the Chicago Board of Trade in August: New members—Harry W. Kress and Arthur Banta. Transferred—R. J. Mott and S. W. Wilder.

Baltimore.—Sec'y Hessong reports that Carroll L. Carmine and L. R. Brandenburg were elected members of the Baltimore Chamber of Commerce and certificates of Jos. C. Townsend and Wm. H. Lake were transferred.

Duluth.—Sec'y Macdonald reports the following changes in membership of the Duluth Board of Trade in August: Withdrawals—H. F. Chaffee, Oswald K. Sellar and A. J. Atkins. Admitted—P. E. Olson, J. D. Collinson and J. V. Sexton.

Kansas City.—Sec'y Bigelow reports that J. J. Hiddleston has been admitted to membership in the Kansas City Board of Trade on membership transfer from Earl Rankin.

Milwaukee.—Sec'y Plumb reports the following changes in the membership of the Milwaukee Chamber of Commerce during the month of August: New Members—Henry A. Rumsey, Lee M. Powell and F. C. Tenney. Transferred Memberships—Thomas E. Cootey, deceased, and H. G. Atwood.

Memphis.—Sec'y Graves reports that R. P. Ransom, engaged in the hay and grain trade, has been made a member of the Memphis Merchants' Exchange.

St. Louis.—Sec'y Smith reports the following new members admitted to membership in the Merchants' Exchange during the current month: Wm. C. Hilmer, with Langenberg Bros. & Co.; J. W. Bryan, with J. S. McClellan & Son; and S. C. Shaw, with Tullal'a Farmers' Elevator Co., Tullal'a, Ill. The following members disposed of their memberships: Wm. R. Faulkner, Jr., Hugh Wright and Henry E. Schulte.

Toledo.—Sec'y Gassaway reports that Harry Kress of Piqua, O., has been admitted to membership in the Toledo Produce Exchange.

ASSOCIATIONS

Sec'y Gibbs reports the following recent changes in membership of the Texas Association: Admitted—Edmiston Bros., Crockett; Stephens-Miller Co., Temple; Tate & Lankford, Shamrock. Application pending—Stolz & Peterson, Inc., Galveston.

Sec'y Strong reports the following new members of the Illinois Association: R. B. Andrews, Macon; Tobey Bane, Ellsworth; Boyce & Edwards, Lane; J. W. Bradway Co., Macon; O. N. East, Milmine; Hendrix Bros., Lane; Geo. M. McElhiney, Midland City; Henry J. Nobbe, Nokomis; Walker, Viemont & Sparks, Mackinaw and Lilly.

New members of the National Association recently reported in "Who's Who in the Grain Trade" are as follows: W. B. Bingham & Son, Augusta, Ga.; Frame, Knight & Co., Baltimore; I. M. Pearlsteine & Sons, Charleston, S. C.; Krohn & Deckrosh, Custer, O.; Elmore & Ball, N. A. Faulkner & Co., Lloyd A. Gray, Jacksonville, Fla.; Ames-Barnes Co., C. Walton Andrus, A. Dunn, P. Levane & Bros., Limond & Co., Long Dock Mills and Elevator Co. (Harlem branch, W. K. Vorhees Grain Co., New York City; Adams Grain and Provision Co., S. T. Beveridge & Co., Frank E. Phillips, Overman-Williamson Co., Richmond, Va.; Davis, Robinson & Co., Horton & Snyder, Howery-Taylor Milling Co., Huff & Cook, Roanoke, Va.; McMorran Bros. & Co., St. Paris, O.; Slidell Grocery and Grain Co., Slidell, La.; E. W. Phares, Tipton, Ind.; H. T. Tillman Grain Co., Valdosta, Ga., making 245 new members added since the Omaha convention of October, 1911.

ALFALFA MILLERS.

The National Association of Alfalfa Millers held a meeting at Kansas City in August. The officers elected for the ensuing year are: Bryan Haywood, Lamar, Col., now in charge of sales department, Kansas City, re-elected president; Otto Weiss, Wichita, first vice president; William Church, Clinton, Okla., second vice president; R. M. Wilcox, Superior, Neb., third vice-president; J. L. Nessly, Newton, Kan., fourth vice-president; C. W. Wright, re-elected secretary.

MERCHANDISE BROKERS' ASSOCIATION.

The first annual meeting of the Merchandise Brokers' Association was held at Blue Ridge Springs, Va., on August 9 and 10. The meeting was well attended and enthusiastic. Trade rules were submitted and accepted by the Association and will be published in the near future for distribution among the trade.

By unanimous vote the old officers were elected to office again for the coming year. These are as follows:

John T. Owen of Owen & Jennings of Lynchburg, president; R. W. Lacy of Bluefield, W. Va., secretary-treasurer; M. W. Reynolds of Bluefield, first vice-president; W. L. Andrews of Roanoke, second vice-president; J. S. Moon of Lynchburg, third vice-president. Board of directors—John T. Owen and John S. Moon, Lynchburg; W. L. Andrews and J. M. Horton, Roanoke; M. W. Reynolds and R. W. Lacy, Bluefield.

On August 9 an informal dance was given to the visiting brokers.

ARGUMENT AGAINST RATE ADVANCE.

At a hearing held in the Transportation building, 608 South Dearborn street, Chicago, Illinois, on Tuesday, July 3rd, 1912, on the question of advancing the freight rates on grain in Illinois 1 cent per hundred to Chicago in Central Freight Association territory, Trunk Line territory, Ohio River Crossings and St. Louis, Mr. R. C. Baldwin of the Baldwin Grain Co., Bloomington, Illinois, chairman of the committee representing country shippers in Illinois, presented the following argument in opposition to the proposition:

"As we understand it, the proposed revision of rates results in an increase of 1 cent per hundred in the freight rate on grain and grain products from points in Illinois to Chicago, Ohio river crossings, and consequently in the total through rate to all points at and east of Chicago, and that there is no corresponding increase in freight rates to the same destinations on grain originating in territory east of the Indiana and Illinois state line or on grain originating from points west of the Mississippi river.

"In the first place, we object to the proposed change in rates on the grounds that this is a discrimination against the Illinois farmers and Illinois grain dealer, as it would result in a direct loss to the farmer to the extent of this increase in freight. As there has been a steady reduction in the margin of profit of the country grain dealer, it is absolutely impossible for him to take on this burden. The Illinois farmer and grain dealer are obliged to compete with the various producing sections east and west of this state, which can be laid down to the consumer as cheaply under the proposed arrangement as under the old tariffs. Naturally, the consumer will not pay more for Illi-

nois grain than he is able to buy equivalent goods from the competing states east and west. Should there be a horizontal increase in the freight rates from all competitive producing sections, it would saddle the burden on the consumer, and such an advance would be free from the objection of being directly discriminatory against this area; but under such conditions we would be opposed to such an advance in freight on the grounds that the increase is unnecessary. It is not shown that as a result of this change in rate that there will be any benefit to the producer or to the grain dealer in increased transportation facilities in the way of improved equipment or any other compensating advantage.

"It is stated that in many cases there will be a sharp reduction in the local freight rate, and that points carrying as high as a 10-cent local to Chicago will be reduced to 7 cents. This is of absolutely no advantage to either interest. Under the old basis of through rates dividing on percentages or under the later basis of proportional rates, with practically no exception where the local rate exceeded either the percentage earning by the western roads, or under the later system, the proportional rate in effect, the grain moved entirely on the basis of the through rate and practically the high local charge on its entrance into Chicago was of no effect. Under extraordinary conditions where the grain might be bought strictly on a local basis due to the market being inflated above a shipping basis, there was still no advantage to the railroad by reason of the high rate, since there was twelve months in which the receiver at Chicago had the privilege of using this billing, and as in all cases, normal shipping conditions prevailed prior to the expiration of the transit, this billing is entirely used and in many cases where the buyer or receiver has transit billing which is allowed to expire, it is invariably billed where the local rate is equal to or less than the proportional or western percentage of the through rate.

Under the old system the percentage of earnings to the western road, based on New York, from one hundred 10 per cent points on the I. C., as an example, domestic was 21 cents, and the Western railroad earnings 5.6 per cent winter basis, and in the summer, due to lake and rail competition, the rate was commonly reduced to 19 cents with a corresponding reduction in earnings to the Western railroad. At the present time the rate of freight from the same territory to New York is 22 cents, and there has been no variation, winter or summer, for more than the past twelve months. There is consequently now 1 cent a hundred more freight taxed against Illinois grain men than was true from the same territory some four or five years previous, and on the basis of existing proportional rates, this territory earns for the Western railroad 6 cents as compared with 5.6 to New York rates, and 5.5 to Philadelphia on the old percentage basis. The Western railroads are, therefore, getting a higher rate of freight from the same territory, and there is no apparent improvement in transportation facilities. The proposed advance would result in a rate of 7 cents either transit or local on grain to Chicago compared with the earnings on the percentage basis of 5.5 and 5.6.

The size of cars used is now much greater than at the time the lower rate prevailed. The average carload from this territory of \$36, and we contend that this earning is ample for the service performed and higher in proportion than the class rates for package merchandise. This grain rate on the average haul in the territory affected to Chicago figures 1 cent per ton per mile.

The association has no objection to the equalization of the rates on some agreed basis to eliminate the present transit arrangements, provided the basis does not result in an increased tax against the grain raised in this territory. The proposed arrangements to us seem to result in discrimination, and its effect would be to eliminate several of our best markets from competing for Illinois grain, as they would be able to buy grain originating either east or west of Illinois, on a lower basis, and will be forced out of this market.

A great advantage to the Illinois producer and farmer arises from the fact that all of this section is strongly competitive and has access to more markets than any other similar territory in this country. If it can be shown that the proposed increase is necessary due to the revenue for the service being unremunerative, it would perhaps be justifiable.

We might further say in closing that the railroads west of the Missouri have just announced a reduction of 3 cents per hundred pounds from that territory to Gulf ports for export, and inasmuch as the I. C. now hauls grain from Illinois to New Orleans for European export for 13½ cents per hundred, and Cuban export 15½ cents, and the Eastern railroads' earnings on domestic business to Baltimore out of Chicago are 13 cents, and export 11½ cents, it seems to be self-evident that the present earnings on Illinois grain to Chicago and Ohio river crossing points are ample for the length of haul.

We sincerely trust that our protest will be favorably received, and that the proposed advance will not be put in effect.

COURT DECISIONS

[Prepared especially for the "American Elevator and Grain Trade" by J. L. Rosenberger, LL.B., of the Chicago Bar.]

Presumption of Identity of Grain.

In an action to recover for the alleged conversion of grain, upon which the plaintiff claimed to hold an unsatisfied seed lien, there was no direct evidence showing that the grain in controversy was grown from the identical seed sold by the plaintiff, but the Supreme Court of North Dakota holds (*Fried vs. Olsen*, 133 Northwestern Reporter, 1041) that in the absence of proof to the contrary, such fact would be presumed, in view of the provisions of the section of the Code, which makes it a misdemeanor for the purchaser of seed grain to use the same for any purpose other than the purpose agreed upon at the time he purchased it.

Where Telephone-Contracted Grain Should Have Been Refused.

An elevator company sent to the proprietors of a ranch in Oklahoma a telegram reading, "Offer fifty there one to five cars bulk mixed corn. White cent over." The message as delivered to said proprietors read: "Offer fifty three one to five cars bulk mixed corn. White cent over." One of the ranchmen then entered into a verbal or telephonic contract with another party to furnish the corn at 53 cents per bushel. After that a telegram was sent to the elevator company accepting its offer. Then, before any further move had been made in the matter by any of the parties, a letter of confirmation was received by the ranchmen from the elevator company which revealed the error.

The Kansas City (Mo.) Court of Appeals holds (*Miller et al. vs. Western Union Telegraph Co.*, 138 Southwestern Reporter, 887) that in an action by the ranchmen against the Telegraph Company to recover damages, as the verbal contract was void in the state where made, because not in writing, it became the duty of the ranchmen in the exercise of reasonable care, in order to mitigate the damages caused by the negligence of the Telegraph Company, to have refused to take the grain, the law requiring the injured party to use all reasonable efforts to mitigate the damages resulting from another's negligence. The court says that in states where the statutes declare such contracts void, they are of no effect whatever. The ranchmen were under no greater legal obligation to accept the grain telephoned for than if there had never been any agreement whatever in reference thereto. A subsequent acceptance of the grain by the ranchmen at the price of 51 cents was a new contract under the statute of Oklahoma, with the making of which the telegram had nothing to do. The ranchmen instead of exercising reasonable diligence to mitigate the damages, if any, consequent upon the negligence of the Telegraph Company in failing to transmit the telegram correctly, voluntarily in effect contracted anew for the grain, the evident purpose of which was to base their claim for the damage in suit. Hence a judgment in their favor should be reversed.

Mutual Fire Insurance Ban.

An important case has been decided by the court in Lee County, Texas, where it was held that corporations have no right to take mutual or reciprocal fire insurance unless their charters specifically authorize them to engage in the insurance business. This follows an opinion to the same effect by the Attorney General of Texas, the test case being entered to secure a decision. Similar rulings have recently been made by the insurance departments of North Carolina and Tennessee.

A stockholder in the Giddings Cotton Oil Company, a corporation, brought suit to enjoin the corporation from taking or carrying mutual or reciprocal insurance on its plant or products. The case was tried in Lee County and judgment was returned ordering the defendant corporation to cancel all such mutual or reciprocal policies as it then held and enjoining the corporation from hereafter taking out such insurance. The court held that the taking of a policy of fire insurance issued on the mutual or reciprocal basis was, in effect, the formation of a partnership insurance agreement between the corporation and others, and was not only not authorized but was specially prohibited by the law of Texas.

The case was not defended by the concern involved, which was regretted, as an adjudication of the case by the Supreme Court of the State was desired. In consequence the defendant company was perpetually enjoined from further entering into such contracts as were adjudicated to be ultra vires. The Attorney General's department had not taken any action to forfeit the charters of corporations taking such insurance, holding that they had entered into such contracts with no intention to do an unlawful act.

Now that the matter has been adjudicated and notice given of the decision it is expected that the Attorney General's department, under its opinion

and the decision, will institute proceedings to forfeit the charters of such corporations as violate the law hereafter.—*Journal of Commerce*.

An Unloading Accident.

While a father was unloading a load of wheat into a car standing on the team track, his five-year-old son was killed by negligent switching. In affirming a judgment for damages in favor of the parents against the railway company, the Kansas City (Mo.) Court of Appeals says (*Butler vs. C. & R. I. & P. R. Co.*, 136 Southwestern Reporter, 729) that the boy's father was on the premises at the invitation of the company which had no right to disturb the car without giving ample warning to those at work in and about it. The act of the company in switching back on the team track so recklessly as to collide violently with the grain car after its conductor knew that the lives and safety of persons lawfully at work on the premises would be endangered by such act, and had given assurances that he would not allow the car to be struck, was more than mere negligence; it was a wanton invasion of the rights of others deserving of the severest reprobation.

The court also thinks that the relation of the child to the Company was the same as that of its father. It was not a trespasser or bare licensee, but was on the premises of the Company by implied invitation. It was a mere baby and came not of its own independent volition, but under the dominion and care of the father, its natural guardian and protector. It was a natural instinctive act of parentage for the father to take his boy with him; and the court is not going too far when it says that carriers should anticipate that parents who come to their stations to transact business with them, or in which they are concerned, are likely to be accompanied by children. If the parent comes as one invited, the child he is suffered to bring on the premises partakes of his invitation. Any other rule would infringe upon the instinctive habits and right of parent and child.

The Stringfellow & Doty Co., has brought suit against the Union City Grain and Feed Co. at Jacksonville, Fla., for \$10,000 damages.

Emil F. Bumann, grain dealer at Bunker Hill, Ill., has filed a voluntary petition in bankruptcy. His liabilities are \$13,259.50 and his assets \$1,000.

The H. F. Tillman Grain Co., with other companies, filed a petition at Jacksonville, Fla., Aug. 26, to have the Union Warehouse and Gin Co. declared a bankrupt.

James William Lawson, grain and feed dealer at Fort Worth, Texas, has filed a petition in bankruptcy. The liabilities are given as \$1,331.40 and the assets as \$550, all exempt.

The Independent Grain Co. has brought suit against the Lincoln Grain Co. at Lincoln, Neb., for \$88.70, which the plaintiff claims is due as a rebate on some grain of poor quality which the company purchased from the defendant.

Kerr, Gifford & Co., grain dealers at Portland, Ore., have filed suit against the W. R. Grace Co. of San Francisco, to recover \$9,312.50, which the former company alleges is due them because of failure of the Grace Co. to furnish 300,000 burlap grain bags. The company cites that agreement was made to deliver this number at 8½ cents each, but it is alleged that only 50,000 were received under the contract. The plaintiff company claims to have had to purchase 75,000 bags at 11½ cents each and 175,000 at 12 cents, thereby sustaining the loss for which judgment is asked.

S. E. and W. D. Harburger and Douglas Cain of the Corn Belt Grain Co., at Atchison, Kan., have brought suit against the Rock Island Railroad for damages amounting to \$345.48. The suit follows a long struggle between the plaintiffs and the defendant for a settlement out of court. Two years ago a consignment of corn was shipped to Torreón, Mexico, with instructions that the cars be inspected at El Paso to avoid any misunderstanding as to weights and rates. The instructions were not carried out, it is alleged, and the consignee refused to accept the grain, thus causing the plaintiff to sell corn at a loss.

After a 12-year fight over a sidetrack at Mohler, Wash., the Supreme Court has rendered a decision in favor of the Farmers' Union Warehouse Co., the plaintiff, against the Great Northern Railway Co. The suit began in 1900 when the railroad tried to secure additional land from the town for sidetracks. The price asked for the land was considered exorbitant by the railroad. As a result the railroad tore up the existing tracks and located new towns on either side of Mohler to divert its business. The railroad commission ordered the railroad to put in a spur, which was done, but the Farmers' Union Warehouse was denied a site on the right of way for a warehouse in 1908. The farmers then built a spur to the warehouse, but the Great Northern refused to remove the wheat. The Supreme Court has decided that the railroad must handle the plaintiff's grain.

HAY AND STRAW

Florida has produced a good crop of hay.

Texas alfalfa raisers have harvested their fourth crop.

The hay crop in the Bear River Valley, Utah, is exceptionally fine.

The heavy crop of hay in Kentucky has caused a sharp decline in prices there.

The English hay crop has been practically destroyed by bad weather in August.

The Angleton Improvement and Produce Co. has erected a large hay barn at Angleton, Texas.

The Consolidated Hay & Grain Co. of Auburn, N. Y., has dissolved. B. A. Dean & Son will continue the business.

Owing to the heavy hay crop in Butler County, Kan., a large hay storage barn has been constructed at Augusta, Kan.

J. A. Purviance, living near Guthrie, Okla., has had four cuttings of alfalfa with a total per acre of seven to eight tons.

The Commercial Club of Carlsbad, N. M., recently took up the matter of the rate on hay with the Santa Fe Railway officials.

Wagner Bros., W. S. Emerson and Lloyd Greenfield have purchased the hay barn at Mt. Gilead, Ohio, from Dumbaugh & Dalrymple.

The hay crop raised in the vicinity of the Cheyenne Indian Reservation in South Dakota is the largest ever known in that district.

The hay crop in the Gallatin Valley in Montana amounted to about 125,000 tons. The growth was unusually heavy and was largely clover and timothy.

Minneapolis received from Nov. 1, 1911, to Aug. 1, 1912, from all directions, 5,073 carloads of hay. St. Paul received 2,871 carloads during the same period.

It is said that about 4,000 tons of hay, representing a market value of \$80,000, were shipped from the San Jacinto Valley in California in the month of August.

The Wisconsin Alfalfa Growers' Association has been invited to hold its meeting in connection with the International Dairy Show at Milwaukee, Wis., Oct. 22-31.

H. H. Benware has harvested 60 tons of finest timothy hay from 18½ acres near Sciola, Iowa. Mr. Benware says that in his 44 years' experience he has not known a better yield.

The Merchants' Hay Co., capitalized at \$5,000, has incorporated in Shelby County, Tenn. The incorporators are E. A. Ryerson, S. A. Kohlbe, J. C. Postal, L. J. Ryerson and M. C. Ketchum.

The Atlantic Salt Hay Co. has incorporated at Bridgeton, N. J., with a capital stock of \$25,000, to grow salt hay. J. L. Weatherly, Jr., Francis McCauley and Joseph E. Wise are the incorporators.

To encourage the raising of alfalfa in Virginia, the State Fair Association has determined to offer special prizes for the best and most instructive exhibit at the fair, which will be held in Richmond the week of Oct. 7.

A company of 135 ranchers, representing 40,000 acres of hay land in the Kittitas Valley, Wash., is planning the organization of a \$500,000 co-operative concern to handle the hay in that district and thus to eliminate the middle man.

The Michigan Department of State, in its August crop report, places the yield of hay per acre and forage in tons at 1.28 in the state, 1.22 in the southern counties, 1.34 in the central counties, 1.27 in the northern counties and 1.65 in the Upper Peninsula.

From railroad reports it is understood that the Nebraska hay crop has been normal, in some sections running above the normal. The crop of prairie and alfalfa hay is better than the average. It is believed that the crop is 50 per cent larger than last year and the quality is good.

Governor Johnson of California has issued a quarantine order against alfalfa received from the following counties: Salt Lake, Tooele, Juab, Utah, Wassatch, Summit, Davis, Morgan, Weaver, Boxelder, Cache and Rich in the state of Utah; Oneida and Bear Lake in Idaho, and Uintah in Wyoming.

C. H. Meyers of Cornell University and F. E. Robinson of the Farm Bureau spent a week in August working with the farmers of Jefferson County, N. Y., to better the crops of timothy hay by furnishing pure strains of selected timothy seed. Ten years have been spent in securing such seed at Cornell.

It has been estimated that Oklahoma has harvested \$5,000,000 worth of alfalfa this season and if present indications are fulfilled, there yet remains \$2,000,000 worth of the output to be cut. The bookings on the Santa Fe, Rock Island, Katy and Frisco Railroads of outbound alfalfa, shipped mainly through the gateways of Kansas City, St. Louis, Chicago and Memphis, aggregate 2,800 car-

loads, as against 642 carloads for the same time last year. This shows an increase of 322 per cent.

Most of the hay crop in Quebec and Ontario was safely housed by August 20, the greater portion in excellent condition. The crop turned out well; and the total hay crop of Canada this year is estimated in round figures at 11,100,000 tons as compared with 12,600,000 tons last year; but judging from reports which we have received from different parts of the country, we are of the opinion that the hay crop of Canada for 1912 will aggregate almost, if not quite as large as that of last year, says the Montreal Trade Bulletin. Farmers are not delivering the new crop very freely, what little business there is doing being on the basis of \$12 to \$13 for No. 1; \$11 to \$11.50 for No. 2, and \$9.50 to \$10 for No. 3 and clover mixed.

BALING ALFALFA.

To our Western friends just a word in regard to baling alfalfa hay. The South and Southeast have complained bitterly as to the manner of baling this hay, advising that three wires be used instead of two. Reports have been received on cars containing from 10 to 40 bales broken in pieces, which entailed an almost total loss; as it is not like timothy, for when it shatters it cannot be handled at all to an advantage and is practically worthless. The extra wire would not make much difference; and I know the South would be glad to pay the difference, if any. Trust that this advice may be received in the light it is intended and something done to remedy this.—J. Vining Taylor, Secretary National Hay Association.

SUMMARY OF HAY RECEIPTS.

	Week Sept. 6.	Last week.	Year ago.
	Sept. 6.	Sept. 6.	Sept. 6.
	Tons.	Tons.	Tons.
New York	4,793	4,360	4,048
Boston	1,630	1,810	3,920
Philadelphia	1,663	1,848	2,085
Baltimore	703	918	1,058
St. Louis	6,535	3,522	7,480
Chicago	3,879	2,590	6,076
Kansas City	5,780	6,720	5,830
Cincinnati	2,836	1,553	3,457
Richmond	593	501	1,243
Milwaukee	1,020	396	804
Peoria	430	430	1,850
Pittsburgh	1,992	1,524	2,428
Total	31,854	26,172	40,279

—Hay Trade Journal.

REVISED HAY GRADES.

Following are the hay grade rules of the National Hay Association as revised at Kansas City in July last. They have been adopted by the following markets: Minneapolis, Jacksonville Fla., Washington, Philadelphia, New Orleans, Indianapolis, Kansas City, Norfolk, Duluth, Toledo, Richmond, Va., Buffalo, Saginaw, Mich., Atlanta, Milwaukee, Savannah, Columbus, Cleveland, St. Paul, Nashville, St. Louis, Pittsburgh, Louisville, State of Minnesota, New York City and Birmingham, Ala., also in part by Baltimore and Cincinnati, while the Chicago Board of Trade rules are identical. The rules follow:

HAY.

No. 1 Timothy Hay—Shall be timothy with not more than one-eighth ($\frac{1}{8}$) mixed with clover or other tame grasses, properly cured, good color, sound and well baled.

Standard Timothy—Shall be timothy with not more than one-eighth ($\frac{1}{8}$) mixed with clover or other tame grasses, fair color, containing brown blades and brown heads, sound and well baled.

No. 2 Timothy Hay—Shall be timothy not good enough for No. 1, not over one-fourth ($\frac{1}{4}$) mixed with clover or tame grasses, fair color, sound and well baled.

No. 3 Timothy Hay—Shall include all hay not good enough for other grades, sound and well baled.

Light Clover Mixed Hay—Shall be timothy mixed with clover. The clover mixture not over one-third ($\frac{1}{3}$), properly cured, sound, good color and well baled.

No. 1 Clover Mixed Hay—Shall be timothy and clover mixed, with at least one-half ($\frac{1}{2}$) timothy, good color, sound and well baled.

Heavy Clover Mixed Hay—Shall be timothy and clover mixed with at least one-fourth ($\frac{1}{4}$) timothy, sound and well baled.

No. 2 Clover Mixed Hay—Shall be timothy and clover mixed with at least one-third ($\frac{1}{3}$) timothy. Reasonably sound and well baled.

No. 1 Clover Hay—Shall be medium clover not over one-twentieth (1-20) other grasses, properly cured, sound and well baled.

No. 2 Clover Hay—Shall be clover, sound, well baled, not good enough for No. 1.

Sample Hay—Shall include all hay badly cured, stained, threshed or in any way unsound.

Choice Prairie Hay—Shall be upland hay of bright, natural color well cured, sweet, sound and may contain 3% weeds.

No. 1 Prairie Hay—Shall be upland and may contain one-quarter midland, both of good color, well cured, sweet, sound and may contain 8% weeds.

No. 2 Prairie Hay—Shall be upland, of fair color and may contain one-half midland, both of good color, well cured, sweet, sound and may contain 12½% weeds.

No. 3 Prairie Hay—Shall include hay not good enough for other grades and not caked.

No. 1 Midland Hay—Shall be midland hay of good color, well cured, sweet, sound and may contain 3% weeds.

No. 1 Midland Hay—Shall be fair color, or slough hay of good color, and may contain 12½% weeds.

Packing Hay—Shall include all wild hay not good enough for other grades and not caked.

Sample Prairie Hay—Shall include all hay not good enough for other grades.

ALFALFA.

Choice Alfalfa—Shall be pure alfalfa of a bright green color, fine stemmed, leafy, sound and well baled.

No. 1 Alfalfa—Shall be reasonably coarse alfalfa of a bright green color, or reasonably fine leafy alfalfa of a good color and may contain 2% of foreign grasses, a trace of air-bleached hay on outside of bale allowed, but must be sound and well baled.

Standard Alfalfa—Shall include all alfalfa not good enough for No. 1, including pure, sound, brown alfalfa. Also bright alfalfa containing not more than 5% foreign grasses, sound and well baled.

No Grade Alfalfa—Shall include all alfalfa not good enough for other grades.

STRAW.

No. 1 Straight Rye Straw—Shall be in large bales, clean, bright, long rye straw, pressed in bundles, sound and well baled.

No. 2 Straight Rye Straw—Shall be in large bales, long rye straw, pressed in bundles, sound and well baled, not good enough for No. 1.

No. 1 Tangled Rye Straw—Shall be reasonably clean rye straw, good color, sound and well baled.

No. 2 Tangled Rye Straw—Shall be reasonably clean, may be some stained, but not good enough for No. 1.

No. 1 Wheat Straw—Shall be reasonably clean wheat straw, sound and well baled.

No. 2 Wheat Straw—Shall be reasonably clean; may be some stained, but not good enough for No. 1.

No. 1 Oat Straw—Shall be reasonably clean oat straw, sound and well baled.

No. 2 Oat Straw—Shall be reasonably clean; may be some stained, but not good enough for No. 1.

HAY CROP OF 1912.

On Aug 23 Sec'y Taylor of the National Hay Association sent out blanks for replies to the following queries:

1. What per cent of an average crop of hay harvested in your section?
2. What per cent of this 1 and 2 timothy and what (A) mixed and (B) clover?
3. What per cent alfalfa and (B) prairie?
4. What condition was the crop harvested under—good or bad?
5. Do you anticipate an early, free movement?
6. What per cent of an average crop of oats harvested?
7. Were they gotten in good or bad condition?
9. What per cent of your oats will be stained?
10. What per cent of an average crop of corn will be harvested in your territory?
11. Is your corn in a normal condition? Yes or no.

The replies are tabulated as follows:

State.	1.	2.	(A.)	(B.)	3.	(B.)	6.	9.	10.
Ark.	81%	..%	..%	..%	17%	83%	100%	..%	125%
Calo.	105	17	6	..	60	17	97	20	...
Ind.	91	53	23	24	..	3	112	64	88
Ills.	89	57	29	12	2	..	89	47	77
Iowa	84	44	22	18	..	16	113	54	117
Kans.	77	11	15	5	15	54	81	5	58
Mich.	92	36	32	27	5*	..	90	81	56
Mo.	102	20	30	6	15	29	77	25	77
Nebr.	84	..	..	..	52	48	90	43	90
N. Y.	89	48	36	14	2	..	65	67	65
Ohio	83	62	24	14	..	..	119	73	88
Okla.	71	..	..	..	9	91	51	16	47
Penn.	96	51	29	20	..	..	84½	57	77
Va.	81	28	45	22	5	..	85	6	48
Wis.	106	40	23	29	3	5	94	71	80

* 3 Timothy.

In reply to 4 Colorado reports "bad"; Pennsylvania, "fair"; Michigan, Ohio and Wisconsin, "half bad"; the rest say "good." In regard to 5, all say "no" except Colorado, Illinois, Pennsylvania and Virginia. In regard to 7 (were oats gotten in a good or bad condition?), Indiana, Michigan, New York, Ohio, Pennsylvania and Wisconsin say "bad"; the others, "good." In regard to 11 (is corn in normal condition), Colorado says "none grown"; Illinois, "late"; Kansas, "no"; Michigan, "late"; New York, Oklahoma, Pennsylvania, Virginia and Wisconsin, "late"; the others say "normal."

The records of rye receipts at Minneapolis were broken on August 27 with arrivals of 90 cars, against 28 same day of 1911.

FIELD SEEDS

F. H. Woodruff & Sons are building a seeds house at Milford, Conn.

The Ohio Valley Seed Co. will build a seeds house at Evansville, Ind.

The Iowa Seed Co. has purchased the Des Moines Seed Co., Des Moines, Ia.

Mt. Ayr, Ia., in August had about 20 cars of timothy seed ready for shipment.

Nearly 14,000 acres of seed peas were grown this year in the Gallatin Valley of Montana.

Gov. Aldrich of Nebraska has appointed Sept. 30 to Oct. 5 as "Seed Corn Week" in that state.

The seed cleaning house of the Elmendorf Coal and Feed Co., Lexington, Ky., is completed.

The Cleveland Seed and Nursery Co. has been organized at Norway, Mich.; capital stock, \$25,000.

The Galloway Bros.-Bowman Co. is erecting a seeds house at Waterloo, Iowa. It will be a three-story concrete building.

Kansas, the "Sunflower State," imports sunflower seed from other states and even from Europe. The seed retails at 10c per pound, to be fed to birds.

The Champaign Seed Co. has been organized at Champaign, Ill., by Geo. B. and May B. Ransom and Bert C. Henness; capital stock authorized, \$10,000.

John Michie, formerly with the Leonard Seed Co., Chicago, will take charge of the seed department of O. P. Jackson & Co., grain, hay and seeds, at Houston, Texas.

The Kansas State Experiment Station at Manhattan has published a list of farmers having seed wheat for sale, with the kind and history of the stock offered.

Dr. E. E. Conant has sold his seed business at Bartow, Fla., to R. M. and Ewing Oglesby, and the style of the business in future will be the Florida Seed Co. The business will be in charge of Ewing Oglesby.

A farmer near Pecos, Texas, thrashed 5,500 lbs. of alfalfa seed from 5¼ acres, being 1,066 lbs. per acre, against 985 as the previous highest record. This means an income of about \$150 per acre, not counting the hay.

Kindersley flax has been chosen by the Saskatchewan provincial authorities to be exhibited at Toronto and other eastern fairs as the best flax grown in the province. This is the flax that was awarded first prize at the Regina fair.

A special ruling was made on Aug. 26 by the Treasury Department that imported castor seed shall be analyzed by the Linseed Association of New York, and allowance be made for non-oleaginous matter therein in excess of 3 per cent.

The Missouri State Board of Agriculture says this year's crop of blue grass seed was the best in the state's records, reaching 100,000 bushels. Red top and "English blue grass" also have yielded well and bring very profitable prices to the farmers.

The flax seed crop of Montana is variously estimated at 4,000,000 to 10,000,000 bushels. The average yield for the entire state will be more than 10 bushels per acre, while some place the total average yield at 17 bushels per acre. Many yields ran 24 bushels per acre.

The new elevator and warehouse of the Mooney Seed Co., which are under construction at Regina, Sask., will cost approximately \$18,000. The buildings will cover an area of 40x94 feet, the greatest height of the elevator being 83 feet. The chief elements in the construction are brick and wood, with laminated flooring.

Southworth & Co., Toledo, say: "We have had so many requests for seed wheat that we have finally arranged to offer less than carload lots. We have a small quantity of pure Fultz wheat, sample of which will be sent upon request. We quote: Carload lots, \$1.20; 100-bu. lots and larger, \$1.40; and smaller lots, \$1.50, all f. o. b. Toledo; price of bags extra—burlap, 10c, and grain bags, 20c each. We offer to do this largely for the good of the cause. The land in Ohio and adjoining states needs new seed, just as you do a vacation. Fultz wheat is a big yielder and makes excellent white flour."

SEED ADULTERATION.

During 1911 the Agricultural Department analyzed 510 samples of red clover seed bought in the open market and none was found to be adulterated or misbranded. Of 305 samples of orchard grass 28 were adulterated with meadow fescue, rye grass, etc. Of 430 samples of Kentucky blue grass, 35 were adulterated with Canadian blue grass, redtop, timothy or bentgrass. Of 303 samples of hairy vetch, or sand vetch, 187, 62 per cent, were adulterated or misbranded. While most of the hairy vetch seed used in the United States is imported, an examination of the seed-producing region of northern Germany and the Baltic provinces of Russia indicates that the seed of hairy vetch is not harvested with the seed of cultivated spring vetch.

"Hairy vetch," the Circular 39 says, "was collected for the first time in 1911 and the proportion of adulterated or misbranded samples was found to be greater than was the case when either orchard grass, Kentucky blue grass, redtop, alfalfa, or red clover was collected for the first time. Of the vetch seed in the purchased bulks reported in this circular only 55.9 per cent was hairy vetch seed capable of germination. This is a comparatively new crop adapted to use over a large part of the United States and under many conditions it is the best leguminous winter cover crop known. It is unfortunate that the more general use of this plant should be restricted not only by the high price of the seed but by the fact that it is adulterated and of low vitality."

SEED CROP.

Reports to C. A. King & Co. on seed crops indicate that of clover and timothy seed "the crop this year will not be large enough to permit of any material exports," and may attract some imports. In Ohio, Indiana, Illinois and Michigan the clover seed crop will be small at best; short acreage is greatest complaint. Pennsylvania reports a fair crop of clover. Maryland also fair—"will have almost enough for home wants." Delaware says a fair crop and smaller demand. New York reports no seed at all, but large demand. Minnesota expects to save the crop. West Virginia a "little above the average." Virginia "much larger crop, but poor quality." In parts of Indiana the crop is very good.

On the other hand, the timothy seed crop is everywhere a good to a "bumper crop."

FLAX CROP.

The flaxseed position is not settled, for only a small proportion is yet harvested. A full crop is raised if it can be saved without frost or other damage. Some of the later seeded stands no more than an equal chance to pull through. On the other hand a few cars are already in the market and sold. It is of good quality and very readily taken by crushers. Presuming it all to be equal or nearly equal, the crop is to be set down as a desirable one. Too little of it has been threshed to reach reliable estimate of its average yield, though so far as can now be seen it will be up to the average so far guessed at. The real quality of the mass is thought to be well up, based upon that in market.—Minneapolis Market Record, Aug. 29.

PURE SEED BILL.

Although the new pure seed law does not go into effect until February, 1913, the demand is heavy for copies of the law, which is supplied by the Agricultural Department. The law continues the Department's authority to test seeds sold in interstate commerce and to publish the names of dealers who sell adulterated seeds. Under the authority of this law the Department has also been making tests of imported seeds. The new law gives to the Department authority to exclude from importation all adulterated seeds of alfalfa, barley, Canadian and Kentucky blue and Oenothera bromegrass, buckwheat, clover, field and kafir corn, meadow fescue, flax, millet, oats, orchard grass, rape, redtop, rye, sorghum, timothy and wheat, or mixtures of these seeds. The law does not apply to seeds imported for manufacture, only to those intended for seeding purposes. The importation of such seeds under bond is to be regulated by the Treasury Department.

Sections 2 and 3 of the new law, defining adulteration, follow:

Section 2. Seed shall be considered adulterated within the meaning of this act:

First—When seed of red clover contains more than 3 per centum by weight of seed of yellow trefoil, or any seed of similar appearance to and of lower market value than seed of red clover.

Second—When seed of alfalfa contains more than 3 per centum by weight of seed of yellow trefoil, burr clover and sweet clover, singly or combined.

Third—When any kind or any variety of the seeds or any mixture described in section 1 of this act contains more than 5 per centum by weight of seed of another kind or variety of lower market value and of similar appearance; provided, that the mixture of the seed of white and alsike clover, red and alsike clover, or alsike clover and timothy shall not be deemed an adulteration under this section.

"Sec. 3. Seed shall be considered unfit for seeding purposes within the meaning of this act:

"First—When any kind or variety of clover or alfalfa seed contains more than one seed of dodder to five grams of clover or alfalfa seed, respectively.

"Second—When any kind or variety of seeds or any mixture described in section 1 of this act contains more than 3 per centum by weight of seeds of weeds."

Section 4 declares that a person violating the act is guilty of a misdemeanor, subject to a fine of \$200 to \$500, and provides that one who knowingly sells for seeding purposes seeds or grain which were imported for manufacture under this act shall be deemed guilty of a violation.

OBITUARY

J. S. Cheyne, a grain dealer at Melita, Man., died at his home Aug. 28. The widow and one son survive him.

Joseph Chapman, for many years at the head of the Fairport Warehouse and Elevator Co., died at his home in Painesville, Ohio, Aug. 26.

Wm. R. Carle died at his home in Wappello, Ill., recently, at the age of 80 years. He had been a grain dealer at Bloomington several years.

Henry George vogle, a member of the Chicago Board of Trade, died Sept. 11, after years of suffering from locomotor ataxia and rheumatism.

Charles H. Williams, a grain inspector at Kansas City, Mo., dropped dead Sept. 4. He was 59 years of age. He leaves a widow and two children.

George Watkins died Aug. 13 at Traverse City, Mich. He had been prominent on the Chicago Board of Trade many years. He was connected with E. W. Bailey & Co. several years.

Mrs. Susan J. Seaverns, widow of George A. Seaverns, a well-known grain dealer, died at her home in Chicago, at the age of 74. A son, two daughters and a brother survive her.

Moses Bloom, a member of the Chicago Board of Trade, passed away Aug. 17. He had been identified with the grain and provision trade in Chicago since 1862. He was 90 years of age.

Miles B. Crafts, a pioneer member of the Chicago Board of Trade, died at Greenville Junction, Me., Sept. 4. He was 70 years of age. His body was brought to Austin, Ill., for interment.

James George died at the home of his son at Brandon, Man., Aug. 28, at the age of 80. He had conducted a grain business and general store at Port Elgin, Ont., for over 40 years.

Charles E. Case, a well-known member of the Chicago Board of Trade, died at Delhi, Ind., Sept. 9. He was at one time connected with the Bartlett-Frazier house but was identified with Nash-Wright & Co., at the time of his demise.

David S. Younce suddenly died at West Milton, Ohio, of heart trouble, recently, aged 55 years. In partnership with his son, Frank Younce, he conducted the grain elevator at Union, Ohio. Beside the son, one daughter survives him.

S. K. Worthington, a pioneer grain dealer of Buffalo, died at his home in that city, Aug. 27. He embarked in the grain business in 1844, when Buffalo was only 13 years old. He was 91 years of age. He is survived by two sons and four daughters.

John W. Hahn, president of the Ohio Millers' Fire Insurance Co., died at his home at Toledo, Ohio, Aug. 25, at 69 years of age. He had been prominent in the grain commission business in Toledo many years. His wife and one daughter survive him.

Charles Henry Smith, a member of the Chicago Board of Trade for 30 years, died Aug. 13 at his home in Chicago of Bright's disease. He was 56 years old. For many years he was connected with the firm of Lamson Bros. & Co. He leaves a widow, two daughters and a son.

Daniel Cutter, a pioneer grain merchant of San Francisco, dropped dead at his home in that city Aug. 31. He was 76 years of age and had been continuously engaged in the grain business for the past 50 years. He was the senior member of the firm of Cutter & Son. He is survived by a widow and one son.

W. S. Crosby, for more than thirty years prominent on the Chicago Board of Trade, died at St. Luke's Hospital, Chicago, Aug. 19. He was 65 years of age. Mr. Crosby suffered a nervous breakdown several months ago and later went to the hospital. At one time he was head of the Board of Trade firm of William S. Crosby & Co. Later he was associated with Logan & Bryan and about ten years ago became identified with Shearson, Hamill & Co. He is survived by a widow, two sons and two daughters.

Ohio has been busy raising Presidents, but has neglected its agricultural possibilities. Not many years ago Ohio was the leading winter wheat state. Now it is in the "also ran" class. Farms in Ohio are cheaper than in Illinois. Some farmers have been allured to Canadian Northwest. Others are inclined there. Immigrants pass us by. Young, progressive farmers should be attracted here. Our face alone does not fascinate them. Ohio has neglected outside advertising. Secretary Sandles of Board of Agriculture wants Ohio represented at the American Land and Irrigation Exposition at New York next November. He would put Ohio on the map as an agricultural state. He is organizing a board to get action. Help. Ohio should get in line. Census returns show smaller population in 39 counties than ten years ago and an average of eight people less in our rural townships.—C. A. King & Co.

FIRES-CASUALTIES

Three grain houses were blown over in a recent storm at Merit, Texas.

Weart & Lysaght's elevator at Quimby, Iowa, was struck by lightning recently.

The Farmers' Elevator at Vailey City, N. D., was slightly damaged by fire recently.

The Independent Elevator at Bath, S. D., suffered a small loss by lightning recently.

Lightning slightly damaged the Quigg Railsback Co.'s elevator at Minier, Ill., recently.

The Winter & Ames Elevator was slightly damaged by lightning recently at Hannah, N. D.

A bolt of lightning struck the new elevator at Hobson, Mont., Sept. 2, but not much damage was done.

Lightning struck the St. Anthony Elevator at Webster, N. D., Aug. 27, but very little damage resulted.

The once of the Shellabarger Elevator Co. at Beason, Ill., was somewhat damaged by lightning Aug. 12.

The elevator of the Canadian Mill & Elevator Co. at Piedmont, Okla., was totally destroyed by fire Aug. 22.

W. C. Geeting's elevator and warehouse at Keedysville, Ind., were completely destroyed by fire Aug. 26.

The Dibble Grain & Elevator Co.'s elevator at Minneapolis was burned recently, the loss amounting to \$2,000.

The Larson Elevator at Maiden Rock, Wis., was gutted by fire Aug. 20. The loss, \$1,000, is covered by insurance.

Fire destroyed the warehouse belonging to Dillard & Co., at Hearne, Texas, Aug. 22. The structure was filled with baled hay.

The Slagle Elevator at Beresford, S. D., was struck by lightning recently, and damaged, although the building was not set fire.

William C. Reinig, head of the Fond du Lac Malt and Grain Co. at Fond du Lac, Wis., suffered a stroke of paralysis Aug. 31.

The flour and feed manufacturing plant and the grain warehouse of G. G. Long & Co., at Culpepper, Va., were wiped out by fire recently.

C. H. Johnson's elevator at Pinola, near Laporte, Ind., was destroyed by fire Aug. 22. Mr. Johnson's loss is about \$10,000 with no insurance.

Fire, which originated in the cupola of the annex of the M. T. Dill Grain Co.'s elevator at Prescott, Wis., Aug. 27, caused about \$200 damage.

Simon C. Kain, aged 66 years, was suffocated in a bin containing 500 bushels of shelled corn in the Ruckrigel Elevator at Ottawa, Ill., Aug. 15.

Fire of unknown origin gutted the elevator of the Kammerdiener Elevator Co. at Oklahoma City, Okla., Aug. 22. The loss was estimated at \$14,000.

The granaries in connection with the plant of P. Burns & Co. at Calgary, Alta., were destroyed by fire Aug. 21. The damage was about \$1,000.

John Sheehan, 72 years old, was perhaps fatally injured Aug. 13, when his left leg was crushed in a grain blower at the Mutual Elevator in Buffalo, N. Y.

The J. B. Adams elevator at Schaller, Iowa, containing 15,000 bushels of grain, burned recently. Gasoline in the engine room is given as the cause of the fire.

The warehouse belonging to the Pinconning Elevator Co. at Pinconning, Mich., was destroyed by fire Aug. 29. The loss is placed at \$8,000, covered by insurance.

The Farmers' Elevator at Chama, N. D., was destroyed by fire, Sept. 2, together with three freight cars and 350 bushels of grain. Chama is R. F. D. from Sentinel Butte.

The hay, grain and feed store of J. B. Smith at Pittsburg, Pa., was damaged by fire to the extent of \$2,000 Aug. 22. The flames originated in the hay loft of the building.

An attempt was made to burn the Security Elevator at Melville, Sask., Sept. 4. A. Rutherford, the manager, detected the work of the incendiary before much damage was done.

G. A. Churchill recently shipped two 1,000-bushel corrugated steel grain tanks from Aberdeen to Stratford, S. D. A high wind seized one of the tanks before it was filled and tore it into pieces.

The feed and grain house of H. M. Aiken at Benton, Ill., was destroyed by fire Aug. 18. The building contained considerable corn and wheat and about 40 tons of hay. The loss is partially covered by insurance.

The loss by fire on the wholesale and retail grain and provision establishment of the Gray-Hildreth Co. at Randolph, Me., has been satisfactorily adjusted by the different insurance companies. The total loss was fixed at \$8,113.75, about \$1,400 being

on the building and \$700 on the machinery, with the rest on the stock.

The Star Roller Mill and Elevator at Wahpeton, N. D., were destroyed by fire recently. The grain house only contained 4,000 bushels of grain. The total loss was estimated at \$45,000 with \$20,000 insurance.

T. E. Bell was caught between the hoist and mixing machine, used in the construction of the new tanks for the Goemann Grain Co. at Mansfield, Ohio, and almost instantly killed recently. His home was in Texas.

The elevator of the St. Anthony & Dakota Co. at Princeton, Minn., was consumed by fire recently. The origin of the fire is unknown. The building contained 3,000 bushels of rye and from 75 to 100 bushels of wheat. The house will be rebuilt.

Lew Benedict, an insurance man at Cedar Rapids, Iowa, suffered quite severe injuries by falling into an elevator pit in a plant adjoining the establishment of the Jackson Grain Co., which burned Aug. 23. He was investigating the fire loss at the time.

The Jackson Grain Co.'s elevator at Cedar Rapids, Iowa, was burned to the ground, Aug. 23. The fire is supposed to have originated from a defective electric wire, which ignited some cobs. The loss, which amounts to \$25,000, is partially covered by insurance.

The warehouse at Modesto, Cal., belonging to the Grange Co., was burned to the ground Aug. 30, the total loss amounting to \$15,000. There were 750 tons of oats, hay and alfalfa stored in the building. The structure was insured for \$3,000 and its contents for a little over \$7,000.

The Farmers' Co-operative Society's elevator at Hampton, Iowa, was struck by lightning recently and almost totally destroyed. The office room, scales and flour storeroom were preserved. The elevator contained 10,000 bushels of grain. The loss is fully covered by insurance and the structure will be rebuilt.

The steamship A. E. Stewart, carrying a cargo of 200,000 bushels of wheat for Buffalo mills, ran ashore at Sturgeon Point, 20 miles west of Buffalo, Aug. 18. The ship was lightered of 20,000 bushels and was able to enter port under her own steam. The vessel did not leak and no damage was done the grain.

Roy Larson of Hetland, S. D., was so seriously injured in his father's elevator Aug. 30, that he died on the train while en route to the hospital at Rochester, Minn., two days later. He attempted to throw the belt off the elevator with his foot when he was caught and carried to the engine. His left foot was torn off, the left hip fractured and the left arm broken in three places.

Fire originating from the explosion of a lantern in the engine room of the grain elevator at Raymond, Ohio, caused the complete destruction of the house Aug. 15. The building contained 7,000 bushels of oats and wheat and a ton of bran. The property was owned by Samuel Benton, whose elevator at Pottersburg, Ohio, was burned Aug. 4. Mr. Benton was severely burned while trying to extinguish the flames. His loss amounted to \$9,000 with \$6,000 insurance.

The elevator and mill of the J. J. Badenoch Co., at 2002 West Seventeenth street, Chicago, were destroyed by fire Aug. 16. The elevator was filled with grain. The fire was discovered by the watchman at about 3 a. m., but it then had evidently been burning for hours. Low water pressure is said to have handicapped the firemen in their fight against the flames. John Gale, the watchman, was compelled to jump from a second story window to save his life and was severely injured. The loss of property has been estimated at \$500,000.

Heads of private houses often have troubles of their own. Recently the head of one large firm was entertaining two prominent Germans and showed them all over his plant, and explained the use of private wires. The Germans were very much impressed with the wire end of the business, and one said: "Ach, it is treason to the Fatherland to have private wires in our country." The head of the house scratched his head and after thinking about the heavy expenses of maintaining those wires said: "I wish they would make it treason in this country. There are a few others who wish so, too."—Inter-Ocean.

Official figures just published show the total maize (corn) exported from Durban, South Africa, during the year ended May 31, 1912, to have been 549,767 bags compared with 876,478 bags during 1910-11, the bags containing 203 pounds each. The great decline was on account of the short crop in several parts of the Union during 1911. Of the totals, 41,085 bags only were from Natal during 1911-12, compared with 185,206 bags during 1910-11. The greater part of the exports during each year came from the Transvaal and the Orange Free State. The total exports from the whole of the Union during 1911-12 amounted to 993,850 bags, compared with 1,260,167 bags the previous year.

BARLEY and MALT

California expects to export 150,000 tons of barley of crop of 1912, leaving 350,000 tons for home use.

Washington barley growers are holding their grain for better prices; and at Dayton one pool of 180,000 sacks are pooled for that purpose.

The proposed raise of 24c on barley rates from the Pacific Coast to Minneapolis has been suspended by the Commerce Commission until Jan. 7.

It has been reported that Garfield County, Wash., has produced the largest barley crop in its history. Farmers have been getting 30 to 60 bushels to the acre in that county.

The German barley acreage was somewhat larger this year than in 1912 and the quality of the crop is reported good. The Hungarian crop will be short, and the Austrian a "good average."

Early arrivals of barley at Minnesota points have been more or less damp, not to say wet, and hard to sell. The rains since harvest have made the grain hard to handle in the field to prevent discoloring. The grain is plump, generally sound, with good germinating quality, but largely discolored.

It has been said that the American Malt Corporation's net earnings available for dividends for the year ending Aug. 31, 1912, will be between \$900,000 and \$1,000,000, or equal to 11 per cent on the preferred stock. Also, it is understood that the dividend would be raised from four to six per cent per annum.

As a result of experiments in the growth of barley in various sections of the Pecos Valley in New Mexico conducted by the State Agricultural College, it is estimated that several thousand acres will be planted to barley next year. It is said that the grain can be grown with marked success in this region. The straw is short but the heads are large and well filled.

E. P. Bacon & Co.'s annual review of the barley crop was published on August 15. It gives Wisconsin a larger yield than in 1911 with variable quality, the major part being good malting quality; Minnesota, large increase in yield and quality like Wisconsin; Iowa, large gain in yield, with quality good, much of it choice; South Dakota, smaller acreage but larger total yield than in 1911, with quality variable but larger percentage is good malting grade.

M. H. Houser, of Portland, Ore., on Aug. 29 bought of the Dayton, Wash., barley pool 150,000 sacks at \$1.25 per cental. The purchase is said to give him practical control of all the brewing barley produced in that neighborhood. Houser is credited with making a profit of \$250,000 by a similar deal last year, when the barley was sold in the East; this year he will export it. The price paid the farmers is said to be the highest price paid there for export barley for a number of years.

The exports of barley from India to Europe are on the increase. For the fiscal year ended March 31, 1912, they reached 292,418 tons, worth \$7,450,000, against 13,345 tons, worth \$300,000 the year previous. A British barley buyer who visited India suggested that "an effort be made to establish the system practiced in the great barley-producing sections of California, where the grain is bagged and placed in railway warehouses against a warehouse receipt which may be hypothecated to a bank against loans."

The Pioneer Malting Co. has incorporated at Minneapolis, with a capital stock of \$1,000,000. The stock is divided into \$700,000 common stock and \$300,000 preferred stock. The output of the plant at Minneapolis will be shipped to Chicago, Louisville and Terre Haute, Ind. The new corporation is an outgrowth of a reorganization of the Electric Malting Co., which was acquired by Terre Haute, Ind., Chicago and Louisville capitalists. The Terre Haute men have the controlling interest, while a majority of the preferred stock is retained by the former owners of the Electric Malting Co. John McDaniels of Terre Haute is the general superintendent of the plant.

THE CONDITION OF BARLEY.

W. H. Prinz, in the American Brewers' Review, commenting on the August report on barley by the Government, said:

"Taking the conditions of the new barley crop as a whole the Government is wrong, as usual, and should not take the barley crop as a whole. They should, however, tell us what percentage of the crop is malting barley and what is feed and mixing barley and what percentage of the crop has been cut for hay. Then their report would be of some value to the brewer and maltster."

"There is no doubt that the wet weather during harvest has spoiled much barley, and had the bulletins issued by the Bureau of Barley and Hop Industry been more distributed among the farmers and their attention called to the importance of following the hints given therein, it would have put

millions of dollars into the pockets of the farmers; but only in a few cases were these hints followed. The rest of the farmers, as always, trusted to luck, but luck and weather conditions were against them. Furthermore, the great drop in prices made them careless, and many say they will not raise barley again next season.

"This is a serious question. They were spoiled by the high prices, and now being forced to accept less than half, they have good reason to feel dissatisfied. It is still my opinion that the brewer and the maltster must get together and adjust this problem, and a way must be found to settle it satisfactorily to the barley-raising farmer, to the consumer, to the brewer of malt, and to the maltster; and they should do this through the Bureau of Barley and Hop Industry.

"But how much do they support the Bureau of Barley and Hop Industry? Most brewers have shown themselves very indifferent to the work of this bureau. Had these brewers given only one-half of the money they spent for fake schemers, who promise them to bust up combinations that only existed in the brains of these schemers—had they given this money to the Bureau of Barley and Hop Industry, so that they would have been in shape to circularize the farmers in the barley raising states and show them the necessity of not alone going to work and spend money and time to raise a crop of barley, but also to take care of that crop of barley, during and after harvest, conditions might have been different. We have the proof right here before us, much barley is utterly spoiled for malting purposes."

THE BARLEY SITUATION.

BY A. L. SOMERS,
President Sommers, Jones & Co.

The barley market continues strong, with the supply lately below requirements and much below expectations. 75c is the top price and paid recently. It was for very fancy quality. Malting barley is salable at from 55 to 72c for good to fancy, with occasional cars of extra fancy quality as high as 75c. Feed qualities are 45 to 53c, inside for cars in heating condition, with the run of strictly feed qualities at from 48 to 50c. This for very poor, damaged or seedy qualities.

There have recently been very heavy sales to arrive, mainly of medium malting qualities, at from 58 to 60c per bu. In addition to this local buyers took several hundred thousand bushels at 55c, for black oats mixed, yellow barley of good low malting quality.

The Government Report of the 9th, showing the barley crop 209 million bushels against 160 million last year, nearly 50 million larger than one year ago, is about as expected. The barley is largely in stack throughout the country, and farmers are threshing slowly and are not at all inclined to sell freely at present prices. We presume that they will begin to realize soon what the big crops of all kinds mean to the country, and that extreme prices cannot be expected at any time.

The expected scarcity of cars so far has not materialized to any great extent. Certain localities have felt the shortage but the majority of shippers are making few complaints. The fact is, the movement has been too light, stopped first by the heavy rains and afterward by rail work. Farmers are busy plowing and are paying little attention to the selling of their grain.

The situation looks favorable for well maintained values for all good qualities of barley, those especially selling at from 62 to 70c at present. The lower grades, especially those that are badly stained and damaged or heavily mixed with black oats, could sell off considerably before the middle of October, by which time the movement is apt to be very heavy. In the meantime, the demand has more than overtaken the supply. Maltsters throughout the country are in the market, and the probability is that the demand will more than take care of any reasonable increase in the arrivals for the next two months. We look for heavy barley values later in the season, when the first heavy demands have been satisfied; but it does not now look as though the extremely low prices would materialize at any time. This is probably true because of the export demand which has lately developed. The Seaboard is paying around 52 to 53c for 45-lb. barley for export, equal to approximately 48c per bushel in the central markets.

The barley of this crop is of fairly heavy quality, and it does not as a rule take much cleaning to work the lower grades up to the 45-lb. test required by foreign buyers. It makes a lot of this low grade feed barley available for feed purposes at relatively good prices. Recent sales on the spot market for No. 1 feed have been at 46 to 47c, but the requirements for No. 1 feed are only for 40-lb. barley. As the great bulk of the crop will test considerably over 40 lb., even very poor, rough qualities become available for that grade.

We will be glad to send samples to shippers, on request, to show what the local market is doing, and to quote values on any samples that they may send in for the purpose.

The CO-OPERATIVES

The Taft Farmers' Elevator Co., Traile Co., N. D., will be dissolved.

The Farmers' Elevator at Lakota, N. D., will not be opened this season.

The Farmers' Elevator Co. at Hampden, N. D., declared a dividend of 90 per cent.

The Moorhead (Minn.) Farmers' Elevator Co., last crop year, did \$106,329.60 of business.

The grain growers of Manitoba now propose to organize a cooperative trading company.

The Farmers' Elevator Co. of Lewiston, Idaho, paid a 10 per cent dividend on 1911 crop.

The Merchants' and Farmers' Grain Co., Belgrade, Minn., declared a 10 per cent dividend in August.

The South Shore (S. D.) Farmers' Elevator Co. has adjusted its financial difficulties and resumed.

The Norman County Elevator Co., Ada, Minn., declared a 10 per cent dividend on last crop year's business.

The Farmers' Elevator Co., Lehigh, Ia., earned last crop year \$1,432.45, and a dividend of 8 per cent was declared.

The Farmers' Elevator Co. at Trent, S. D., after some years' experience, has quit and sold the elevator to Roy Underwood.

Stockholders of the Wolford (N. D.) Farmers' Elevator Co. received a 10% dividend, and those who patronized the house received an additional dividend of 2% on the value of the grain they sold to it.

SASKATCHEWAN ELEVATORS.

The report of the year's operations of the Saskatchewan Elevator Co. was made at Regina on August 22. The net profits for the year shown by the balance sheet submitted by the directors to shareholders amounted to \$52,461. Of this amount the directors recommended using \$3,662 for the payment of maximum dividends of 6 per cent, permitted by the act of the incorporation, leaving a balance of \$48,799. Of this amount, under the act 50 per cent, or \$24,399, was placed to the elevator reserve fund, the remaining \$24,399 being placed to the credit of the fund to be known as the "trading reserve fund," which is to be built up to enable the company to trade in those commodities required by the farmers in their agricultural operations.

The steady growth of the company is shown in the total subscribed capital, which now stands at \$1,177,200, shares being held by 8,962 farmers.

At the conclusion of this year's building operations the company will possess 140 elevators, representing an approximate capital outlay of \$1,115,000.

The directors' report, in reviewing the work of the year, referred to the establishment of a sales and commission department, with offices in Winnipeg, though under the direct supervision of the head office in Regina, this department superseding the Grain Growers' Grain Company as selling agent for the Saskatchewan concern.

Up to the end of the financial year, July 31, the company, though handicapped by an exceptionally difficult season and great delay in getting its 46 elevators built last fall, had handled 3,261,000 bushels of grain, 1,474,645 bushels of which was purchased by the company and 1,786,355 bushels special binned for the farmers.

MARKET CONTRACT GRADES.

Where more than one kind of grain is deliverable upon contracts, the lowest priced is the kind which is delivered. If cash grain can be sold at a premium it is not delivered but sold and the contract covered in the market. Toledo has only the single gold standard. Two Red of the soft variety is the only kind which is deliverable here. It is the only market of that kind. The shortage this season is in that kind. Three Yellow Corn is our contract grade. It is the kind New England wants. Two mixed corn is the contract grade in Chicago, with three mixed deliverable at five cents discount. Standard oats are the contract grades here and Chicago. Three Whites are delivered in Chicago at five cents discount.

Chicago contract grade of wheat this year means two red hard. Two red there sells at a big premium, as does one northern. St. Louis means two red hard at three cents discount. Kansas City means two red hard. Minneapolis means velvet chaff or two northern at discount of three and half cents. Duluth means one northern or number two at five cents discount. New York allows two red hard or two white at a discount of two cents. Omaha means two red hard. Milwaukee means No. 2 Northern, No. 2 red hard or 2 red. Other markets do not do much in grain futures. Chicago is talking of making velvet chaff deliverable there after next July. Duluth will probably make it deliverable there.—C. A. King & Co.

Hess Grain Driers

MODEL FOR 1913

The stationary driers for 1913 show a marked change in distribution of materials.

The heavy cast iron plates heretofore used have been superseded by plates of pressed galvanized steel, much less in weight, though the necessary strength is retained. This reduces the cost of the drier housing, the load upon it being lessened. The saving of material in the drier itself also permits a *very substantial reduction in our price.*

We announce also for all portable and stationary driers A NEW DESIGN OF STEAM COILS suitable for exhaust or live steam. The new coils provide a continuous circuit for the steam, hence positive and rapid circulation. With four pounds back pressure the largest coil is filled and thoroughly heated *in less than three minutes.*

These coils are so fitted that unequal strains from expansion and contraction are impossible, and there is no breakage of parts. The pipes are self cleansing, and no dust nor dirt can accumulate upon nor within them.

We have also designed a new drying system for

EAR CORN

with furnace heat. It is inexpensive, and adapted to the needs of the large grower, and of the seed merchant. No boiler required, and no machinery necessary in its operation.

With our unequaled facilities for manufacturing and our corps of drier engineers always available, we can serve you more promptly and more efficiently than others. Free booklet and plans.

Hess Warming & Ventilating Co.

910 Tacoma Bldg. CHICAGO, ILL.

More Hess (U. S.) Moisture Testers are in use than all other makes combined.

TRANSPORTATION

Car shortage has advanced lake rates on grain. Ocean rates are double those of two years ago. Portland, Ore., is paying 50s (\$12) for wheat to Europe. Vessels are asking 4c for grain storage through the winter.

The C. P. Ry. has added 125 locomotives and 5,000 box cars to its equipment.

Pacific Coast ports all complain of lack of tonnage, both to Asia and to Europe.

A barge line is now in operation on the Missouri river from Kansas City to St. Louis for flour and sacked stuff.

New Orleans export trade is greatly hampered by lack of bottoms and rates are very high, with little competition of tramps.

The Commerce Commission has decided that foreign cars must be returned to the owning road immediately after unloading.

As early as August 15 the Northwest reported hundreds of loaded grain cars on sidings waiting for motive power to move them to Minnesota terminals.

Detroit has filed a complaint with the Commerce Commission against the reconsignment charge of \$2 and a suspension was ordered for 90 days, ending in November.

The New York State Canal Board has approved plans for the construction of barge canal terminals at Iliou and Rome, and voted to locate terminals at Cleveland, Oswego County, Whitehall and Watkins.

The Dominion Grain Commission has decided to adopt the system of the lake shippers with regard to warehouse receipts, etc., and to have the system in force at the head of the lakes beginning with September.

Eastbound carriers have re-established local rates on grain and grain products, applicable on products not entitled to reshipping or proportionate rates under transit rules. The rates Chicago to New York are as follows: Grain, domestic, 20.5c; export, 17.5c; products, except flour, domestic, 21.2c; export, 19.5c.

The W. H. Suffern Grain Co., Decatur, Ill., has complained to the Commerce Commission against the alleged unreasonable practice in connection with the elevation allowance on grain destined to points in the East. It was declared that the Illinois Central and other railroads show an undue preference to Cairo and other points, and petitioner asks that Decatur be placed on a parity, either by allowing the "plaintiff transit on the portion of the lines leading to the Ohio river without charge for such transit or otherwise, and allowing said plaintiff the same elevation when destined finally to the same points where elevation is allowed at Cairo and other points."

The Chicago, Milwaukee & St. Paul Railway has announced that, effective September 26, on bulk grain from Missouri River or points beyond delivery to boats at Chicago, through elevators, will be made at charge of $\frac{1}{4}$ c in addition to tariff rates to Chicago, where elevators will perform delivery service for a charge of not to exceed $\frac{1}{2}$ c per ton, which charge will be assumed by the Chicago, Milwaukee & St. Paul Railway. All other Missouri River lines, with the single exception of the Chicago & Northwestern Railway, now have in effect tariffs covering this arrangement. It is said that it is the intention of the Chicago & Northwestern Railway to publish a similar tariff.

The Chicago, Milwaukee & St. Paul Railway has announced that, effective September 26, on bulk grain from Missouri River or points beyond delivery to boats at Chicago, through elevators, will be made a charge of $\frac{1}{4}$ c in addition to tariff rates to Chicago, where elevators will perform delivery service for a charge of not to exceed $\frac{1}{2}$ c per ton, which charge will be assumed by the Chicago, Milwaukee & St. Paul Railway. All other Missouri River lines, with the single exception of the Chicago & Northwestern Railway, now have in effect tariffs covering this arrangement. It is said that it is the intention of the Chicago & Northwestern Railway to publish a similar tariff.

GRAIN DOORS AND COOPERING.

The 23 Western roads entering Chicago have established a bureau under immediate direction of A. E. Schuyler to recover all grain doors from inbound cars, while the General Managers' Association will cooper all cars for outbound shipments. With a view of reducing the leakage of outbound grain to the minimum, cars are re-coopered in accordance with the following instructions:

All cars are inspected to ascertain whether or not they are suitable for carrying bulk grain; each car is to be swept clean; fiber paper and burlap are to be used freely to make cars grain tight; to stiffen the grain doors and to prevent possible leakage at their

intersection, the doors are to be tied together near the center with an upright brace extending from the door-sill, and any loose sheathings are to be secured to the sills by the free use of cement-coated nails.

The Weighing Department of the Chicago Board of Trade will co-operate with the grain-carrying roads to prevent the loss of grain and the Weighmaster will "O. K." all cars.

ONE CAUSE OF CONGESTION.

During the five years ending with 1902, the railroads built 22,186 miles of additional single track, whereas, from the beginning of 1907 to the end of 1911 only 18,670 miles were constructed. During the first five years named 4,216 miles of second track was laid, whereas only 4,031 miles were put down during the second. In the matter of yard tracks and sidings, the greatest preventive of freight congestion, only 11,234 miles were added during the past five years, compared with 15,540 from 1902 to 1906, inclusive.

DEMURRAGE RULES.

The demurrage rules which were agreed upon by a committee of the American Railway Association for the railroads, and a committee of the National Industrial Traffic League for the shippers, went into effect on September 1. They make the National Car Demurrage Rules more liberal to the shippers in several respects. They place a more liberal interpretation upon weather conditions which may save the shippers from paying demurrage after the prescribed free time; they also place a broader interpretation upon the term "bunching" which is one of the causes for exempting the shipper from demurrage charges; they make new allowances for the delay of notices which the railroads mail to the shippers when the cars arrive and they eliminate the clause which required a division of cars into two classes for the purpose of "averaging" the free time.

CHANGES IN DEMURRAGE RULES.

The Chicago Board of Trade Transportation Department, August 24, said:

"Our Bulletin No. 177 gives the date of effectiveness as September 1, 1912, of the changes referred to in the Uniform Code of Demurrage Rules. This date covers the tariffs of only the following carriers: Baltimore & Ohio R. R.; Belt R. R.; Chicago, Indiana & Southern R. R.; Cleveland, Cincinnati, Chicago & St. Louis R. R.; Erie R. R.; Grand Trunk R. R.; Indiana Harbor Belt R. R.; Lake Shore & Michigan Southern R. R.; Michigan Central R. R.; New York, Chicago & St. Louis R. R.; Pennsylvania Co.; Pittsburgh, Cincinnati, Chicago & St. Louis R. R.

"We are informed that the tariffs of all other roads, although not yet issued, will become effective October 1, 1912.

"It should be understood that the application of these changes is based upon the date of shipment from point of origin in the country, and not date of arrival here."

LOSS OF GRAIN BY FAILURE TO SWEEP CARS

The Chicago Board of Trade Transportation Department says:

"Many complaints are made as to shortage in weight of bulk grain delivered from team tracks. The carrier is responsible for the correctness of its team track scale weights and is also responsible for loss of grain in the course of transportation. On the other hand, the carrier is not responsible for loss of grain due to the loading or unloading of the same.

"The manager's attention has been recently called by the railroads to a number of cases where several bushels of grain were left in the car after it was presumed to have been fully unloaded and a bushel or more spilled on the ground and not gathered up. The loss in such case is due to the carelessness of teamsters in not thoroughly sweeping the car after unloading and failing to gather up the grain spilled on the ground.

"The railroad company is not responsible for a loss of this kind, and attention is directed to the matter that you may require your teamsters to thoroughly sweep cars and gather up any grain that may be spilled on the ground while unloading.

"In making any claim for loss of grain in transit, be sure to ascertain that no part of the loss arises from the above cause."

Central Indiana firm writes C. A. King & Co.: "Oats making large yields. Have never seen so large a per cent of the crop go into farmers' bins in all our grain trade experience."

The South Dakota Better Farming Association has acquired a storage place in Aberdeen for seed corn. Five bushels from each of one hundred farmers can be handled. This corn must be picked before the early frosts and sent to Aberdeen, where the association will care for it during the winter and will make a germination test next spring.

PERSONAL

E. F. Blair, hay dealer at New York City, recently spent several weeks in Toledo, Ohio, investigating trade and crop conditions in Ohio.

B. C. Hanson, manager of the Victoria Elevator at Hazleton, N. D., was married to Miss Carrie Anderson at Henning, Minn., recently.

William Hunter of Minneapolis has assumed the management of the McCabe line of elevators in Manitoba, with headquarters at Winnipeg.

Everett Hamman of Ivesdale, Ill., has purchased half interest in the elevator at Roberts, Ill. William Murray of Champaign, Ill., secured the other half.

H. N. Stratton has been appointed agent at Ralston, Wash., for the Leitch Grain Co., which has purchased the Turner Warehouse Co., at that place.

N. C. Jenson, formerly buyer for the Cargill Elevator Co. at Browns Valley, Minn., has assumed the management of the Northwestern Elevator at Benson, Minn.

J. T. Cook has resigned his position as manager of the farmers' elevator at Allison, Iowa, to take possession of the elevator at Bristow, Iowa, which he recently purchased.

John Levally, a member of the Board of Trade at Chicago, was on Aug. 22 slugged and robbed of his watch, a diamond ring, a stickpin and cash. His loss amounted to about \$400.

Ed. Bauermeister of Norwood, Minn., has been elected vice president of the Reliance Elevator Co. at Minneapolis. Mr. Bauermeister has been traveling auditor for the company.

D. C. Donovan, who recently accepted the management of the National Elevator at Langdon, N. D., has resigned to operate an elevator at Lansford, N. D., which he has purchased.

W. W. Whipple, formerly manager of the Thorpe Elevator Co. at Beach, N. D., is now manager of the Farmers' Co-operative Co. at Chama Station, R. F. D. from Sentinel Butte, N. D.

D. J. Swan, who has been identified with the Pipestone Milling Co., at Pipestone, Minn., for some time, has been engaged by the A. A. Traux Grain Co. as buyer for its elevator at Ihlen, Minn.

Fred O. Olsen, who has had charge of the elevator and seed business of N. J. Olsen & Sons at Sanburn, N. D., will take part in the management of the company's business at Moorhead, Minn.

The estate of Thomas Morgan, a grain and feed dealer, who died March 7, 1911, will amount to nearly \$300,000. His membership on the New York Produce Exchange was appraised at \$375.

W. H. Holliday has accepted a position as manager of the Union Grain and Elevator Co. at Omaha, Neb. Mr. Holliday was associated with the Rothschild Grain Co. of Davenport, Iowa, for ten years.

Henry Watts has taken charge of the house of the Great Western Grain Co. at Lisbon, N. D. This elevator has been closed for some time, but this year's crop demands an opening of all available houses.

Leonard Hill resigned his office as secretary of the Caledonia Stock and Grain Co., at Caledonia, Minn., to engage in the grain business on his own account. D. C. Merlo has been appointed to succeed him.

Alfred Bruce, a prominent hay and grain merchant at Burley, Wash., recently left his home on a trip to Los Angeles. As no word has been received from him for several weeks, his father is alarmed.

O. H. Koethe, who has been manager of G. A. Swan's elevator and grain business at Albert Lea, Minn., for the past three years, has resigned to engage in other business. He is succeeded by Chas. Fellows.

O. W. Simonson, who has been agent for the St. Anthony & Dakota Elevator Co. at Malta, Mont., has accepted a position as superintendent for his company and will have charge of a line of twenty elevators running west from Glasgow, Mont.

Wilbur B. Christian has resigned his position as St. Louis correspondent of the "Northwestern Miller," to enter the grain business as president of the recently organized Eureka Elevator Co. at St. Louis, Mo. He will operate the Peerless Elevator.

B. W. Wasson, of the grain firm of B. W. Wasson & Co., who has been a member of the Cincinnati Chamber of Commerce for 50 years, celebrated his eighty-third birthday at his home at Norwood, Ohio, Aug. 26. His wife, who is 80, and his six children, assisted him in the festivities.

W. S. Gasling of Buenos Aires was on the Chicago Board of Trade recently. He estimated the exportable corn surplus last crop at 240,000,000 bushels, oats at 700,000 tons and linseed at 480,000 to 500,000 tons. Owing to the high price of corn last year horses were treated to their first general feeding of oats. There will be an exportable surplus of 100,000 tons of oats this year.

LATE PATENTS

Issued on August 13, 1912.

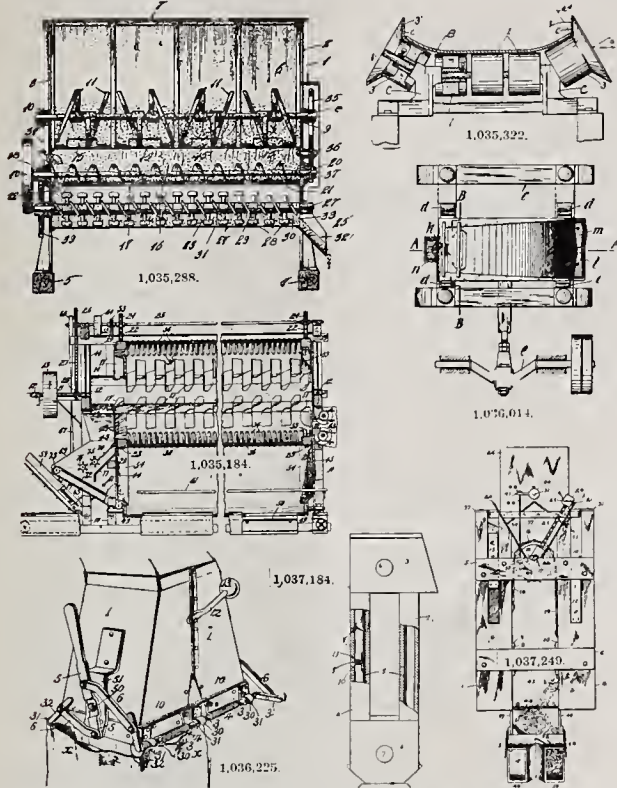
Pea Huller and Separator.—Frank Hamachek, Kewanee, Wis. Filed June 22, 1910. No. 1,035,284. See cut.

Feed Mixing Machine.—Milton F. Williams, St. Louis, Mo., assignor to Williams Patent Crusher and Pulverizer Company. Filed June 12, 1911. No. 1,035,288. See cut.

Side Troughing Roll for Belt Conveyors.—Edward Cuddihy, Tooele, Utah. Filed April 24, 1912. No. 1,035,322. See cut.

Issued on August 20, 1912.

Apparatus for Sorting and Cleaning Grain.—Heinrich Seck, Dresden, Germany. Filed September 13, 1910. No. 1,036,014. See cut.



Sack Holder.—Charles J. Hall, Rosalia, Wash. Filed September 5, 1911. No. 1,036,225. See cut.

Issued on August 27, 1912.

Conveyor Hopper.—Howard S. Gardner, East Orange, N. J. Filed September 27, 1911. No. 1,036,993.

Grain Door for Box Cars.—Adolph Edourd H. Steinmann, Bettendorf, Iowa. Filed October 4, 1910. No. 1,037,077.

Cleaner and Scraper for Grain Elevators.—Henry Farrar, Buffalo, N. Y. Filed May 19, 1911. No. 1,037,184. See cut.

Issued on September 3, 1912.

Automatic Grain Weigher.—William F. Hilfiker, Jay County, Ind. Filed February 19, 1912. No. 1,037,249. See cut.

Method of Curing and Preserving Seed Corn.—William W. Wentworth, Preston, Iowa. Filed May 5, 1911. No. 1,037,382.

Grain Door for Cars.—Will A. Heiden, Guthrie, Okla. Filed September 11, 1911. No. 1,037,761.

ELEVATORS AND MILLS

FOR SALE.

Southern Minnesota, 12,000-bushel elevator, on Illinois Central Railroad. Feed mill, flour and feed side line; good territory; fine prospects; price reasonable. BOX 59, London, Minn.

ELEVATOR FOR SALE.

Will store ten thousand bushels of grain, 5 horsepower gasoline engine in running order, for \$2,500 cash; \$2,700 on time—\$1,000 cash and the balance in terms with interest at eight per cent. A. E. ENGSETTER, Birch Hills, Sask., Canada.

FINE TERMINAL PLANT FOR SALE.

Grain Elevator property for sale at Harvey, Ill., on Grand Trunk Railroad. Description: 10 fire-proof storage tanks, capacity 250,000 bushels; bleaching tower; boiler house and boiler; office; motors; machinery; electric switches; concrete foundation for working house, etc. Direct and belt connections with all railroads. Address H. W. ROGERS & BRO., Western Union Bldg., Chicago, Ill.

MACHINERY

FOR SALE.

A 30-horsepower New Era Gasoline Engine. Just been rebuilt and as good as new. May inquire of SYLER BROS., Ankenytown, Ohio.

FOR SALE

Gas or gasoline engines: 15 horsepower, \$200; 30-horsepower Fairbanks-Morse, \$600; all good condition. Also various brick machinery. Address FORT SCOTT BRICK CO., Fort Scott, Kan.

FOR SALE

Good second-hand steam traction engine and baler; in first-class condition; just the thing for farm use or for regular baling. Engine, 8-horsepower Nichols & Shepard; baler, Ely, making 13 to 18 bales. CHAS. B. WING, Mechanicsburg, Ohio.

SCALES FOR SALE.

Rebuilt scales, guaranteed in good condition, at half prices: 100-ton, 42-foot Standard; 80-ton, 42-foot, and 60-ton, 38-foot Fairbanks; 10-ton, 14-foot, 6-ton, 14-foot, and 5-ton, 14-foot Fairbanks wagon; 200 and 150-bushel hopper Fairbanks; 3,500-pound and 2,500-pound dormant. Several portable scales. Also new scales, all sizes. STANDARD SCALE CO., 1345-47 Wabash Ave., Chicago, Ill.

HELP WANTED

WANTED.

A strictly sober, industrious man to run an elevator in a good town in Ohio. Steady employment and good wages to the right man. State experience in first letter. H., Box 9, care "American Elevator and Grain Trade," Chicago, Ill.

Grain and Seeds

OATS STRAW WANTED.

Wanted, 100 cars oats straw. C. T. HAMILTON, New Castle, Pa.

ALFALFA SEED FOR SALE.

New crop, irrigated, recleaned; seamless bags, in car lots. REINHARDT & COMPANY, growers, McKinney, Texas.

FLOUR AND MILL FEEDS.

Mixed cars of flour and mill feeds in 100-pound sacks are our specialties. Would like to send you a trial order to convince you of the superiority of our products. ANSTED & BURK CO., Springfield, Ohio.

SEEDS FOR SALE.

Johnson Grass Seed. Indicate quantity wanted and time of shipment desired. We also handle Alfalfa Seed, other Grasses, Field Seeds and Feed Stuffs. Put us on your list. DALLAS GRAIN & SEED CO., Dallas, Tex. Established 1905.

CHOLERA PROOF HOGS.

I have more than 5,700 swine on my farm and am selling grade Yorkshire, Tamworth, Poland-China and Duroc brood sows, boars and shoats in any quantity at best Buffalo market price for fat Yorkers on day of sale. Sows to farrow soon included. These hogs are not fat, are cholera proof and prolific breeders. Pigs that are six to ten weeks old at \$3 to \$4. ALVAH BROWN'S PIG FARM, Grand Rapids, Mich.

For Sale

[Copy for notices under this head should reach us by the 12th of the month to insure insertion in the issue for that month.]

SECOND-HAND GRAIN BAGS.

For sale, 5,000 second-hand grain bags; any quantity. For prices write FOELL & CO., 123 Market street, St. Louis, Mo.

Miscellaneous Notices

[Copy for notices under this head should reach us by the 12th of the month to insure insertion in the issue for that month.]

WANTED.

An attrition mill for grinding corn meal. JOHN F. HUNT, East Lynn, Mass.

99

For twenty-five years 99 Board of Trade has led as headquarters for latest grain news and descriptive literature covering world's crops. Wagner Letter, Wagner Crop Booklet, "Grain Investments" sent on request. Write to 99.

E. W. WAGNER & CO., 99 Board of Trade, CHICAGO

Edward P. McKenna

John A. Rodgers

McKENNA & RODGERS
COMMISSION MERCHANTS

Grain and Provisions, Shippers of Corn and Oats

61 Board of Trade, CHICAGO

Consignments given
Special AttentionPhone
Harrison 7228Orders in Futures
carefully executed

WANTED

Mixed Alsike and Timothy

Carlots or less. Will pay you more than you can get elsewhere. Send samples today. Also want Timothy, Red Clover and Alsike, etc.

THE ADAMS SEED COMPANY
DECORAH, IOWA

SEEDS WANTED

We solicit correspondence from shippers or dealers who are in position to offer us, or can secure for us, Timothy, Red, Alsike or Alfalfa Clover, Millet, Red Top, or other Field Seeds. Write us, with crop news, samples, and other information as to production of seed and approximate values in your section. Please refer to this advertisement.

ILLINOIS SEED CO.

1521-1535 Johnson St.

CHICAGO, ILL.

GRAIN RECEIVERS

PHILADELPHIA

L. F. MILLER & SONS,
Receivers and Shippers of
GRAIN, FEED, SEEDS, HAY, ETC.
OFFICE: 2931 N. BROAD ST., PHILADELPHIA, PA
CONSIGNMENTS SOLICITED. Special attention given to
the handling of CORN AND OATS.
REFERENCES: { Manufacturers' National Bank, Philadelphia, Pa.
Union National Bank, Westminster, Md.

E. E. DELP GRAIN CO.
GRAIN AND FEEDS
453 BOURSE PHILADELPHIA, PA
ELEVATOR, TRANSFER HOUSE AND MILLS:
BOURBON, INDIANA

CRAWFORDSVILLE, Ind.

Crabbs Reynolds Taylor Company
CLOVER SEED
Car Lot BUYERS of GRAIN
Crawfordsville Indiana

DETROIT

A. S. DUMONT R. C. ROBERTS R. L. HUGHES
Dumont, Roberts & Co.
RECEIVERS GRAIN SHIPPERS
Chamber of Commerce DETROIT, MICH. Merchants Exchange
DECATUR, ILL.
Consignments Solicited. Ask for our bids and quotations.

ROOFING AND SIDING

SYKES STEEL ROOFING CO.

114 W. 19th Place, Chicago

MAKERS OF FIREPROOF WINDOWS

WE manufacture all gauges of corrugated iron, either painted or galvanized. We make Patent Cap Roofing, Roll Cap roofing, "V" Crimped Roofing, Metal Ceilings, etc., etc.

We make a specialty of

**Corrugated Iron and
Metal Roofing
For Grain Elevators**

And take contracts either for material alone or job completed
Write us for prices. We can save you money.

PEORIA

P. B. & C. C. MILES
Established 1875 Incorporated 1910
PEORIA, ILL.
Handling Grain on Commission
Our Specialty

A. G. TYNG, Jr. D. D. HALL
TYNG, HALL & CO.
Grain and Commission
Merchants
Rooms 33 and 35 Chamber of Commerce
PEORIA, ILLINOIS

C. W. Buckley. Thos. J. Pursley
Buckley, Pursley & Co.
COMMISSION MERCHANTS
GRAIN, HAY AND SEEDS
PEORIA, ILL.
References { First National Bank, Peoria, Ill.
Commercial German National Bank, Peoria, Ill.

W. W. Dewey & Sons
GRAIN COMMISSION
26 Chamber of Commerce, PEORIA, ILL.
Prompt personal attention given to
Consignments and orders for grain.

We Get Continuous Chicago Markets. Private Wires to all Points.
T. A. GRIER & CO.
Grain Shipping and Commission Merchants
We Furnish Bids on Grain to Arrive
and Also Solicit Consignments.
18-22 Chamber of Commerce, PEORIA, ILL.

RUMSEY, MOORE & CO.
GRAIN COMMISSION
Board of Trade Bldg. PEORIA, ILL.

LOUIS MUELLER L. L. GRUSS
MUELLER GRAIN CO.
RECEIVERS and SHIPPERS
GRAIN
We Solicit Your Consignments In Grain and Hay
ROOM 39 CHAMBER OF COMMERCE
PEORIA, ILLINOIS

We are here to handle your business right;
either on Consignment or Sales to Arrive.
WARREN COMMISSION CO.
GRAIN
PEORIA - - ILLINOIS
B. E. MILES L. H. MURRAY

PEORIA

S. C. BARTLETT CO.
Peoria, Illinois
**RECEIVERS and SHIPPERS
of GRAIN**
Consignments Solicited. Reference any Bank or Banker.

ST. LOUIS

**"THE CONSIGNMENT HOUSE
OF ST. LOUIS"**
GRAIN, HAY & GRASS SEEDS
Picker & Beardsley Com. Co.
118 NORTH MAIN STREET.

Ship your Grain, Hay and Seeds to
John Mullally Commission Co.
ST. LOUIS, MO.
WE NEVER BUY—HANDLE ON
CONSIGNMENT ONLY

INDIANAPOLIS

**The
Bassett Grain Co.**
INDIANAPOLIS
Telephones 80 615-616 Board of Trade

**FRANK A. WITT
GRAIN**
Strictly Commission and Brokerage
Close attention to the details of all business.
627 Board of Trade, INDIANAPOLIS, IND.
Phone 3630

OMAHA

HOLMQUIST ELEVATOR CO.
OMAHA, NEBRASKA
Receivers and Shippers of Grain
Sacked Corn and Oats a Specialty
Consignments Solicited

CAVERS ELEVATOR CO.
OMAHA
Receivers and Shippers of Grain
SACKED CORN AND OATS
Members: Omaha Grain Exchange Chicago Board of Trade.

GRAIN RECEIVERS

TOLEDO

When "Seedy"
Try
C.A. King & Co.

Futures and Consignments.
Red Clover, Timothy and Alsike.
Toledo Leads The World

"SEND IT TO ZAHM"

THAT Consignment of Wheat, Oats, Corn or Seed.
THAT Order for Futures—Toledo or Chicago.
TOLEDO is the real market for Red Clover, Alsike and Timothy futures.

J. F. ZAHM & CO.
TOLEDO (Here since 1879) OHIO
ASK FOR OUR DAILY RED LETTER—FREE

JOHN WICKENHISER & CO.
Wholesale Grain Dealers
TOLEDO, OHIO

We make track bids and quote delivered prices.
Solicit consignments of Grain and Clover Seed.
Members Toledo Produce Exchange and Chicago Board of Trade

The Oats Specialists
H. D. RADDATZ & CO.
GRAIN, SEEDS AND FUTURES
Always in the market to buy or sell. Ask for our prices.
Room 21, Produce Exchange
TOLEDO, OHIO

OUR DAILY MARKET LETTER
can now be found on the last page of the Toledo Market Report. If not receiving it, write us.

SOUTHWORTH & COMPANY
GRAIN, SEEDS, PROVISIONS
35-37 Produce Exchange TOLEDO

Oats Are Our Specialty
The Paddock Hodge Co.
Receivers—TOLEDO—Shippers

DECATUR



OUR BIDS ARE GOOD ONES.

PITTSBURG

Sizing up Pittsburg Market?
THINK OF

H. G. MORGAN, "The Pittsburg Hay Man"
727-729 Grain Exchange, Pittsburg, Pa.
HAY—Ear Corn, Oats—HAY

IN THE ONE SPOT 45 YEARS
Daniel McCaffrey's Sons Co.
Leading Hay and Grain Dealers
Pittsburg - - - Pennsylvania

D. G. Stewart & Geidel
GRAIN, HAY and FEED
RYE A SPECIALTY
Office 1019 Liberty Street Pittsburg, Pa.
Proprietors Iron City Grain Elevator. Capacity 300,000 bu.

Established 1878
C. A. FOSTER
Wholesale Grain, Hay, Straw and Feed
WABASH BUILDING PITTSBURG, PA.
Member: { Grain Dealers National Association
National Hay Association

C. M. HARDMAN D. V. HECK
HARDMAN & HECK
Receivers and Shippers of
GRAIN, HAY AND MILL FEED
IN CAR LOADS
Office: 723-725 Wabash Bldg., Pittsburg, Pa.
We buy direct or handle your grain on consignment. Our facilities are unequaled for handling your shipments satisfactorily in the Pittsburg market.

W. F. Heck & Company
RECEIVERS AND SHIPPERS IN CAR LOTS
MIXED CARS OUR SPECIALTY
Grain, Hay, Straw and Mill Feed
Room 727, Wabash Bldg., Pittsburgh, Pa.
Members: National Hay Association and Use Robinson's Code.
Pittsburg Grain and Flour Exchange

MINNEAPOLIS

J. L. McCaull, President R. A. Dinsmore, Vice President
S. J. McCaull, Secretary A. M. Dinsmore, Treasurer
The McCaull-Dinsmore Co.
COMMISSION MERCHANTS
915-16-17 CHAMBER OF COMMERCE
MINNEAPOLIS, MINN.
DULUTH MILWAUKEE OMAHA

NEW YORK CITY

L. W. FORBELL & CO.
Commission Merchants
342 Produce Exchange NEW YORK
Try us with consignments of oats and corn.
We are Specialists in these grains and are strictly Commission Merchants.

BROOKLYN HAY & GRAIN CO.
HAY, STRAW AND GRAIN
COMMISSION MERCHANTS
ON ALL MARKETS IN NEW YORK HARBOR
Office: Borough of Brooklyn, New York

LANCASTER

DO YOU REALIZE
That country trade always pays you best in every way?
We work a large country business.
See the point?
JONAS F. EBY & SON, LANCASTER, PA.

KANSAS CITY

R. J. THRESHER, Pres. L. A. FULLER, Sec'y
THRESHER-FULLER GRAIN CO.
Grain Commission Merchants
CONSIGNMENTS SOLICITED
Grain Bought and Sold for Future Delivery
311-14 Board of Trade KANSAS CITY, Mo.

MILWAUKEE

O. MOHR, Mgr. G. C. HOLSTEIN, Sec'y-Treas.
Mohr-Holstein Commission Co.
29 Chamber of Commerce
MILWAUKEE
Sample Grain a Specialty
BRANCH OFFICES AT CHICAGO AND MINNEAPOLIS

OUR SPECIALTIES:
Malting Barley
Milling and Distilling Rye
FAGG & TAYLOR, Shippers
MILWAUKEE, WIS.

BALTIMORE

CHAS. ENGLAND & CO.
RECEIVERS OF
GRAIN and HAY
308-310 Chamber of Commerce
BALTIMORE, MD.

GRAIN RECEIVERS

CHICAGO

ARMOUR GRAIN CO.

GRAIN DEALERS

CONSIGNMENTS SOLICITED. This department is fully equipped in every way to give the very best service in Chicago.

137 S. La Salle St. CHICAGO

E. W. BAILEY & CO.

Commission Merchants

GRAIN, SEEDS AND PROVISIONS

72 Board of Trade CHICAGO

ADOLPH KEMPNER COMPANY

COMMISSION MERCHANTS

Reliable Crop Information. Prompt and Faithful Service.
50 Board of Trade, CHICAGO

Hulburd, Warren & Chandler

Stock Brokers and Commission Merchants, Grain and Provisions.

Business solicited in any department
Receiving, Shipping, Futures
130 S. La Salle St. CHICAGO



SOMERS, JONES & CO.

(INCORPORATED)

COMMISSION MERCHANTS

GRAIN AND FIELD SEEDS

CHICAGO MILWAUKEE MINNEAPOLIS

We are amply prepared to give the best of service on consignments of cash grain and on orders for future delivery.

Make drafts on us and address all correspondence to us at
82 Board of Trade, CHICAGO

J. P. GRIFFIN & COMPANY

Grain Commission

61 BOARD OF TRADE

Long Distance Telephone
Harrison 5693

CHICAGO

PHILIP H. SCHIFFLIN, Pres. EUGENE SCHIFFLIN, Secy.-Treas.

PHILIP H. SCHIFFLIN & CO.

INCORPORATED

Commission Merchants

515-518 Postal Telegraph Bldg.
CHICAGO, ILLINOIS

Consignments of all kinds of Grain and Field
Seeds a specialty

Lamson Bros. & Co.

ESTABLISHED 1874

Commission Merchants

AND

Track Buyers of Grain

6 Board of Trade CHICAGO

Ask for Bids Consignments Solicited

CHICAGO

"The High Cost of Living"

—or—

"The Cost of High Living"

Has caused us all to want more profits.
Wouldn't you appreciate top prices on
your consignments?

Then ship to us.

W. A. Fraser Co.

715 Royal Insurance Bldg., CHICAGO, ILL.

BRANCHES: Peoria, Ill. St. Louis, Mo.

EVERYONE HAS A HOBBY
SO HAVE WE

CONSIGNMENTS

THAT'S ALL TRY US

M. L. VEHON & CO.

762 INSURANCE EXCHANGE BUILDING, CHICAGO

B. S. WILSON

HARRY BOORE

B. S. Wilson & Co.

GRAIN, SEEDS and PROVISIONS

1118-1119 Royal Insurance Bldg., Chicago

W. M. TIMBERLAKE, Manager Grain Department

WM. SIMONS, Pres. and Mgr.

WARREN T. McCRAY, Vice-Pres.



GEO. L. STEBBINS, Sec'y-Treas.

E. E. RICE, Representative

POPE & ECKHARDT CO.

Commission Merchants

Grain and Seeds

316-322 Western Union Building

CHICAGO



RUMSEY & COMPANY

COMMISSION MERCHANTS

Consignments a Specialty for Forty Years

80-81 BOARD OF TRADE,

Branch Offices
PEORIA
ST. LOUIS

CHICAGO

I. P. RUMSEY
FRANK M. BUNCH
HENRY A. RUMSEY

J. Herbert Ware Edward F. Leland

CONSIGN

your Grain and Seeds, and send your
orders for

GRAIN, PROVISIONS and STOCKS to

WARE & LELAND

190 W. JACKSON BOULEVARD

Royal Insurance Bldg.

CHICAGO

Long Distance Phones:

Wabash 3262 Automatic 51073

Your Interests Are Our Interests

GRAIN RECEIVERS

CHICAGO

GEO. S. DOLE, Pres. H. N. SAGER, Sec.
J. H. DOLE & CO.
 (Established 1852)
 Commission Merchants, Grain and Seeds
 We solicit your
CONSIGNMENTS
 and orders in futures
 226 La Salle Street, - - CHICAGO

HELLO! HELLO!! HELLO!!!
 ¶ In order to get the best results from a telephone conversation, you have got to have a good connection. Just so in the handling of your business. ¶ Connect with the firm that is a live wire; that will look after your interests; call for re-inspection when necessary; get good prices; make quick returns, and give you liberal treatment. ¶ In other words, make a connection with
ROSENBAUM BROTHERS, 77 Board of Trade, CHICAGO.
 ¶ Send us your grain to be sold on consignment. ¶ Let us bid for it when you desire to sell to arrive. ¶ You'll make no mistake (either Toledo or Chicago). ¶ Let us hear from you.
 PHONE. TELEGRAPH. WRITE.

F. E. WINANS & CO.
 GRAIN AND FIELD SEEDS
 COMMISSION MERCHANTS
 Barley, Oats, Wheat, Corn, Rye, Timothy, Clover, Flax, Hungarian Millet
 96 BOARD OF TRADE, CHICAGO
 Write us freely on all matters pertaining to grain and field seeds. Your questions fully and cheerfully answered; particular attention paid to timothy seed and grain by sample. Consignments and speculative orders receive our careful personal attention.

G. T. CARHART Pres. L. S. HOYT, Vice Pres. A. N. HARWOOD, Sec.-Treas.
 Personal, experienced attention given to all consignments to
CARHART, CODE, HARWOOD CO.
 GRAIN COMMISSION MERCHANTS
 36 BOARD OF TRADE CHICAGO

C. H. CANBY & CO.
 8 Board of Trade
 CHICAGO
 We give special attention to handling the hedges of grain dealers and millers in the future markets. *Write us.*

RALPH McDERMID
McDERMID & CO.
 Commission Merchants
 Grain and Provisions
 333-334 Postal Telegraph Bldg., CHICAGO, ILL.
 Personal attention to Consignments and Orders for Future Delivery.

Nye & Jenks Grain Co.
 907-913 Postal Telegraph Bldg.,
 Chicago, - Illinois

E. C. BUTZ GRAIN CO.
 Cash Grain Commission
 Barley a Specialty
 601 Gaff Building CHICAGO, ILL.

CHICAGO

H. M. PAYNTER
 GRAIN COMMISSION
 Special attention given consignments of grain and seeds. Orders in futures carefully executed
 402-408 Western Union Bldg., Chicago
 All business transacted through and confirmed by H. W. Rogers & Bro.

HENRY H. FREEMAN & CO.
 Hay, Straw and Grain
 COMMISSION MERCHANTS
 Correspondence and Consignments Solicited.
 Market Reports on Application.
 66 Board of Trade CHICAGO, ILL.

The personal attention kind of service counts
Walter Fitch & Co.
 Insurance Exchange Building, Chicago
 Our personal attention given to orders in futures and grain consignments.
 W. K. MITCHELL, Mgr. Cash Grain Department

HOOVER GRAIN COMPANY
 OAT
 Shippers
 Operate Atlantic and Grand Trunk Western Elevators
 CHICAGO

C. H. THAYER & CO.
 GRAIN, SEEDS, FUTURES
 Your Consignments and Future Orders Solicited
 Our untarnished record for more than a quarter of a century, backed up with over \$100,000.00 capital, certainly speaks for itself.
 721 Insurance Exchange Bldg., CHICAGO
 Minneapolis Milwaukee St. Louis Kansas City

BUFFALO

Alder-Stofer Grain Co.
 CONSIGNMENTS A SPECIALTY
 Buffalo, N. Y.
 The permanent success of our business depends on our customers' continued satisfaction. Our business has been established forty years.

L. S. CHURCHILL, President
 G. W. BARTLETT, Treasurer
The Churchill Grain & Seed Co.
 Commission Orders Executed. Grain and Seed Bought and Sold
 Offices: Buffalo, N. Y. Members
 Toledo, Ohio New York Produce Exchange
 Seed Warehouse: Toledo Produce Exchange
 Located at Toledo, Ohio Buffalo Corn Exchange

A. W. HAROLD
 GRAIN
 BARLEY A SPECIALTY
 717 Chamber of Commerce BUFFALO, N. Y.

H. T. BURNS, President BASIL BURNS, Sec.-Treas.
Burns Grain Company
 BUFFALO, N. Y.
 We invite correspondence and solicit consignments.
 GET OUR BIDS AND MARKET REPORTS

L. E. HARMON, Pres. GEO. F. BOOTH, Sec. and Treas.
BUFFALO CEREAL COMPANY
 CEREAL MILLERS
 Buyers of White Corn, Yellow Corn and White Oats.
 BUFFALO, N. Y.

SEEDS THE ALBERT DICKINSON CO.
 DEALERS IN
 GRASS SEEDS, CLOVERS, FLAX SEED, LAWN GRASS, BEANS, PEAS, POPCORN, BIRD SEEDS, BUCKWHEAT, BAGS, ETC
 CHICAGO, Ill. Branch: Minneapolis, Minn.

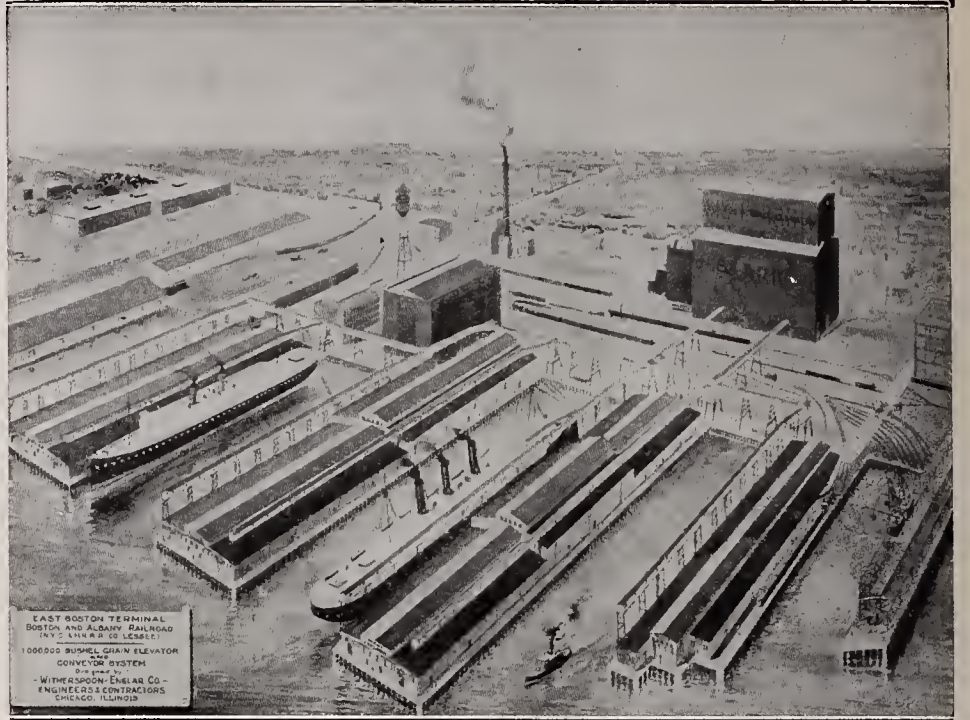


MACDONALD ENGINEERING CO.

MONADNOCK BUILDING, CHICAGO



The above cut shows one of our latest models

Fire Proof Concrete Grain ElevatorIn this style we build *Transfer Elevators, Terminal Elevators*
or *Elevators at Country Points.* Write us.**Fireproof Grain Elevators**East Boston Terminal, Boston & Albany Railroad,
New York Central & Hudson River Railroad Co., LesseesDesigns and estimates promptly furnished
for all kinds of buildings for the handling
and storage of grain in any locality.**Witherspoon-Englar Company**

1244-1250 Monadnock Building, Chicago, Ill.

John S. Metcalf Co.

Builders of

*Terminal Elevators**Concrete Storage Bins**Transfer Elevators***Drawings and Specifications**

THE TEMPLE, CHICAGO

**FIRE-PROOF GRAIN
ELEVATORS
CONCRETE OR STEEL BINS**

WHEELER ELEVATOR, BUFFALO, N. Y.

MONARCH ENGINEERING CO.Engineers and Contractors
Chamber of Commerce - - - BUFFALO, N. Y.
WRITE US FOR PRICES

At 10 tion

**Burrell
Engineering
& Construc-
tion Co.**Designers and
Builders of**GRAIN
ELEVATORS**in Wood or
ConcreteRooms 1001-1004
Chicago Stock Exchange Building
CHICAGO, ILL.1125 Chamber of Commerce Building,
DETROIT, MICH.

JAMES STEWART & CO.

GRAIN ELEVATOR DEPARTMENT

1811 Fisher Building
W. R. SINKS, Manager

CHICAGO
R. H. FOLWELL, Engineer



Grand Trunk Pacific Railway Co. Elevators at Fort William, Ont.
Capacity 3,500,000 Bushels.

We Build Grain Elevators, Any Type of Construction, in Any Part of the World

Also General Contractors with Offices in the Following Cities,
Wire, Write or Call Personally.

NEW YORK, Hudson Terminal Building	ST. LOUIS, MO., Bank of Commerce Building
PITTSBURG, PA., Westinghouse Building	NEW ORLEANS, LA., Hibernia Bank Building
SAN FRANCISCO, CAL., 709 Mission Street	DENVER, COLO., 1st National Bank Building
CANADIAN STEWART CO., Limited, Montreal, Can., Eastern Townships Bank Building	FORT WILLIAM, Ontario, Canada

Fire Proof Steel Grain Elevators and Storage Tanks



30,000 Bushel Steel Elevator Built for Dakota Grain Co. at Alfred, N. D.

This is a type of elevator that we are building all through the Western States. They are an absolute insurance against fire, and for that reason they are the most economical elevator construction that can be found.

The Minneapolis Steel & Machinery Co. is equipped to furnish both steel and machinery with service, which, for efficiency and promptness is not equalled in this kind of work.

MINNEAPOLIS STEEL & MACHINERY CO. MINNEAPOLIS, MINN.

Denver, Colo.
El Paso, Tex.

Spokane, Wash.

Salt Lake City, Utah
Butte, Mont.

ROBINSON TELEGRAPHIC CIPHER

Revised Edition

Cloth Binding - - - \$1.50
Leather Binding - - - \$2.00

Mitchell Brothers Publishing Co. 431 S. Dearborn St., Chicago.

Elwood's Grain Tables, A book needed by every miller and grain dealer. It shows the value of any number of bushels or pounds of wheat, rye, oats, corn or barley at any given price from 10 cents to \$2.00 per bushel. Cloth bound, 200 pages. Mailed on receipt of price, \$1.25, by

MITCHELL BROTHERS PUBLISHING CO., 431 S. Dearborn St.

CHICAGO



The Barnett & Record Co.

General Contractors
DESIGNERS AND BUILDERS OF

Grain Elevators Flour Mills and Heavy Structures

This Flour Mill and Grain Elevator recently constructed for the St. Lawrence Flour Mills Co., Ltd., at Montreal, Quebec, Canada

Write for Designs and Estimates

OFFICES

Minneapolis, Minnesota

Duluth, Minnesota

Fort William, Ontario

G. H. BIRCHARD
Contractor of
Grain Elevators
Especially Designed for Economy of
Operation and Maintenance
LINCOLN, NEB.

C. E. BIRD & CO.
Builders of the Highest Type of
MODERN GRAIN ELEVATORS
MINNEAPOLIS MINN.

L. H. HODGMAN
DWIGHT, ILL.
Designers and Builders of Elevators and Mills
Write for Plans and Estimates.
(We designed and built the Angola (Ind.) Elevator
illustrated on page 557 of the April "American
Elevator and Grain Trade".)

Elevator Machinery and Supplies

FLOUR AND FEED MILL MACHINERY
STEAM AND GAS ENGINES

Pulleys, Shafting, General Power Transmission Machinery, Roll
Grinding and Corrugating

Largest Factory and Stock in Western Country

SEND FOR 450-PAGE CATALOG

GREAT WESTERN MFG. CO.

General Office and Factory
LEAVENWORTH, KAN.

Warehouse and Salesrooms
1221-1223 Union Ave.
KANSAS CITY, MO.

SEEDS

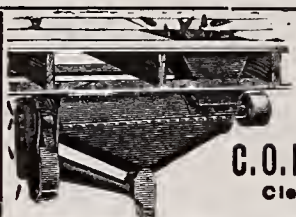
Grain, Clover and Grass Seeds,
CHAS. E. PRUNTY,
7, 9 and 11 South Main St. SAINT LOUIS

Robinson Telegraphic Cipher Revised Edition

Cloth Binding \$1.50

Leather Binding 2.00

Mitchell Brothers Publishing Co.
431 S. Dearborn St., Chicago



Triumph
Power
Corn Sheller
C. O. Bartlett & Co.
Cleveland, O.

Elwood's Grain Tables

Show the value of any number of bushels or pounds of Wheat, Rye, Oats, Corn or Barley at any given price from 10 cents to \$2.00 per bushel. One of the most useful books ever offered to millers. Endorsed by prominent millers and grain dealers. Bound in cloth, 200 pages. Mailed on receipt of price

—\$1.25—

**Mitchell Brothers
Publishing Co.**

431 S. Dearborn St.,
CHICAGO



The "Old Cyclone" served its purpose as an important factor in Dust Collector Evolution.

The problem was to eliminate the loss of half the power or volume of air current.

THE NEW "1905"
**Cyclone
Dust Collector**
Saves This Loss

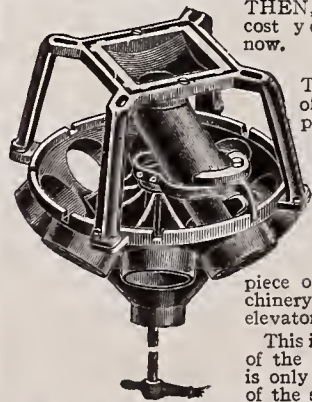
Write for Our
Dust Collector Catalog

The Knickerbocker Co.
Jackson, Michigan

If you would look at the expense account for the last 5 years of your distributing outfit, including all its paraphernalia, you will instantly see, that had you installed a

Hall Signaling Non-Mixing Distributor

THEN, it would cost you nothing now.



This result is often multiplied every few months, instead of years.

The Hall Distributor outlasts every other piece of grain machinery in your elevator.

This item of cost of the device itself, is only one feature of the saving.

HALL DISTRIBUTOR COMPANY
506 Ramge Bldg., OMAHA, NEBR.

Reliance Construction Company

Furnish Plans, Estimates and Build
COUNTRY GRAIN ELEVATORS

Our long experience as a builder of elevators insures you an up-to-date house. Write today.

625 Board of Trade Building,

INDIANAPOLIS, IND.

Did It Ever Occur to You

That the best way to get what you want, and get it promptly, is to send your orders to people who have had experience in the business and who carry a stock of goods always ready for quick shipment? We have been in the Elevator and Mill Furnishing business over twenty-five years and feel that we know something about it. We carry in stock a complete line of supplies, including Testing Sieves, Transmission Rope, Belting, Steel Split Pulleys in sizes up to 54-inch, Elevator Buckets, Conveyor Chain Belting, Sprockets, Lace Leather, Scoops, Shafting, Collars, Bearings, etc., etc. Send us your orders. We will satisfy you.

THE

STRONG-SCOTT MANUFACTURING CO.
MINNEAPOLIS, MINN.

Northwestern Agents for The Great Western Mfg. Co., Richardson Automatic
Scales, Invaluable Cleaners, Knickerbocker Dust Collectors

Walls, Bins and Grain Elevators

By MILO S KETCHUM

Second Edition. 556 pp., \$4.00.

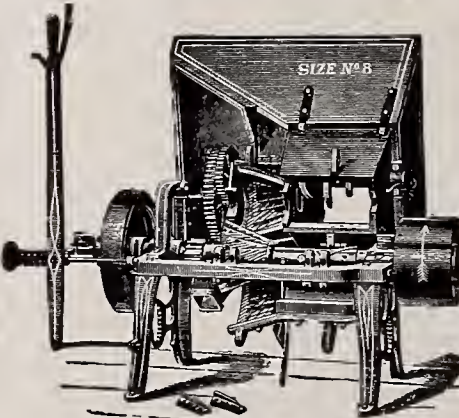
Design and construction are covered completely in this book. The new edition brings it up to the minute with fresh data, new cuts, and a modern treatment throughout. Over 150 pages were added to the old edition. The new chapters on "Reinforced Concrete" and "Methods of Construction and Cost of Retaining Walls" are especially valuable. It is the standard work on stresses due to granular materials.

Mitchell Bros. Publishing Co.,

431 So. Dearborn Street, Chicago, Ill.

Bowsher's All-Around Feed Mill

(Sold with or without soaking elevator)



It CRUSHES ear corn (with or without shucks) and GRINDS all kinds small grain and KAFFIR IN THE HEAD. Has CONICAL shaped GRINDERS, DIFFERENT FROM ALL OTHERS. RUNS LIGHT. Can run EMPTY WITHOUT INJURY. Ahead of rolls or stones in speed and quality of work.

YOU NEED a mill now. Quit THINKING about it. COMMENCE to investigate. Give US a chance and we'll tell you WHY we think ours is the best.

SEVEN SIZES: 2 to 25 H. P.

Circular sent for the asking.

Drive pulley overhung. Belt to it from any direction. Makes complete independent outfit.

THE N. P. BOWSHER CO., South Bend., Ind.

The BOOK of CORN

SHOULD BE ON THE DESK OF EVERY
ELEVATOR MAN WHO HANDLES CORN

It is the only work that covers the field from the growing to the final disposition of the cereal. An exhaustive treatise on corn growing, breeding, marketing, etc.

The book has been prepared by specialists, under the direction of Herbert Myrick, and covers all features of the corn business. It tells not only how corn should be treated by the farmer as producer in every step of the program of corn culture, but also how to market corn and what ultimately becomes of it—on the farm, as feed; or in the world's markets as the raw material of vast manufacturing industries.

Price, \$1.50 per copy

For sale by **MITCHELL BROTHERS PUBLISHING CO.**
431 S. DEARBORN STREET CHICAGO, ILLINOIS

Millers' National Insurance Co.

Room 1321, Insurance Exchange Building,
175 W. Jackson Boulevard.

CHICAGO - - ILL.
CHARTERED 1865

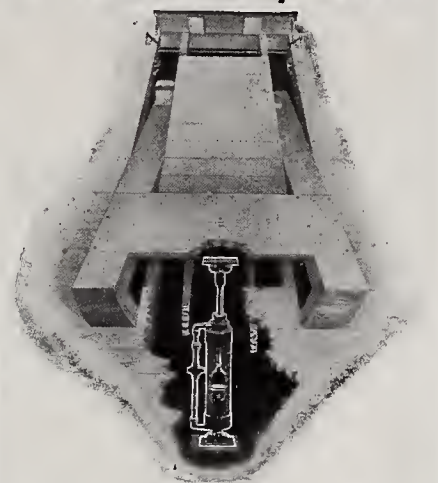
Insurance with a maximum of security at a minimum of cost for ELEVATORS, WAREHOUSES and CONTENTS, on the Mutual Plan.

Five-Year Policies or short term policies on grain, if required.

Semi-Annual Assessments costing about one-half Stock Company Rates.

Gross Cash Assets.....\$1,703,365.33
Net Cash Surplus and Permanent Fund.....\$1,013,587.24
Losses Paid Since Organization...\$7,673,329.60

The Automatic Dump Controller



This new and simple device for the controlling of the drop of wagon dumps, is the only machine on the market; no attention or power in operating. It is entirely out of the road and completely automatic. Our list of testimonials and number of duplicate orders shows its usefulness. The easy dumping of a man's wagon is pleasing to him as well as prevents expense for repairing wagons, and the chance for dissatisfaction. Hundreds in use. Satisfaction guaranteed. For further particulars, address
L. J. McMILLIN
618 Board of Trade Bldg., Indianapolis, Ind.
Also designer and constructor of grain elevators. Write for plans and specifications.

TWO-BELT TRADE-MARK CONVEYER

Let Us Handle
Your Load

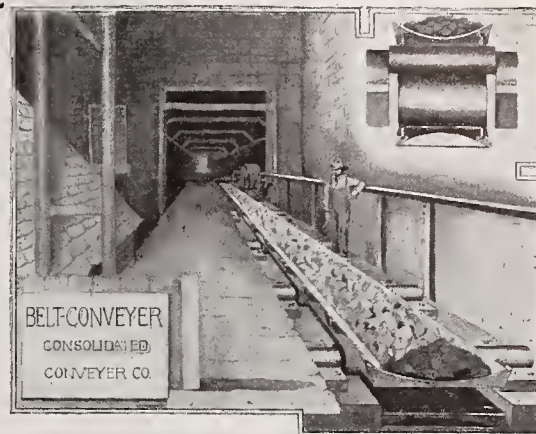
For Conveying

GRAIN, COAL, STONE, ORE, Etc.

No TROUGHING Rolls; No FLEXING of Belt; No ANGLES on the Belt;
No SPECIAL Belt Required; No Guide Pulleys, etc.

We design and build Conveyers for all requirements.

CONSOLIDATED CONVEYER COMPANY
Warder Building, WASHINGTON, D. C.

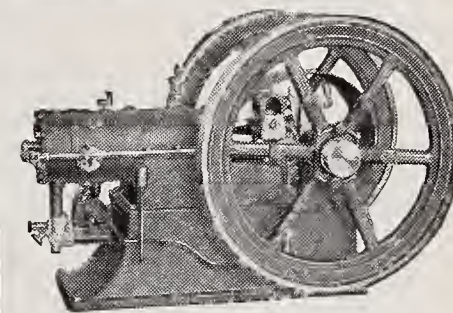


KENNEDY CAR LINERS

are the modern,
sure and cheap
way of avoiding
losses and troubles
occasioned
by leakage in
transit. Made by

FRED W. KENNEDY
SHELBYVILLE, IND.

1879—LAUSON "FROST KING"—1912
Has High Grade Rotary Built-in Magneto and no batteries to give you trouble or expense. Engine has hardened steel wearing parts. Gasoline or Kerosene.
THE JOHN LAUSON MFG. CO.
59 Monroe Street New Holstein Wis.



Fred Friedline & Company

DESIGNERS AND BUILDERS

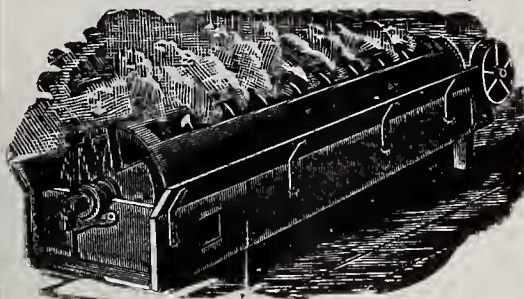
Transfer, Terminal and Country Elevators, Warehouses, Tankage in Frame, Iron-Clad or Fire-Proof Construction, Concrete Tanks

Plans and Specifications a Specialty.
Write for Sketches and Estimates.

253-261 La Salle Street CHICAGO.



SEE THAT YOUR
CONTRACT CALLS FOR



THE
**CUTLER
STEAM
DRYER**

SOLD BY ALL MILL FURNISHERS

Not an Experiment. In successful use 30 years drying
CORN MEAL, HOMINY,
BREWERS' GRITS AND MEAL,
AND ALL CEREAL PRODUCTS.

ALSO SAND, COAL DUST, GRAPHITE, CLAY, ORES, ETC.

Automatic in operation, requiring no attention.

THE CUTLER CO., North Wilbraham, Mass.
CATALOG ON REQUEST



DUST! DUST! GIBBS
DUST PROTECTOR is invaluable to operatives in every industry where dust is troublesome. It has been thoroughly tested for many years in every kind of dust, and is the most reliable protector known. Perfect Ventilation. Nickel-plated protector, \$1. postpaid. Circular free. Agents wanted. **GIBBS RESPIRATOR CO.**
"B" 124 East Ave., Oak Park (Chicago), Ill.

MILLERS' MUTUAL FIRE INSURANCE ASSOCIATION OF ILLINOIS

Established 1878. Alton, Illinois

Insurance on Flour Mills and Elevator Properties.

Grain Insurance for short terms a Specialty.

CASH ASSETS - \$376,783.32

G. A. McKINNEY, Sec'y

INSURE WITH THE Michigan Millers Mutual Fire Insurance Co. of LANSING, MICHIGAN

and get, without extra cost, the benefit of their Scientific Inspections of your plant, embracing

Common Hazards

Mechanical Hazards

Electrical Hazards

Members of Mutual Fire Prevention Bureau

UNIVERSAL GRAIN CODE

(AND MILL FEED SUPPLEMENT)

Compiled for use of

GRAIN AND MILLING TRADES

of the United States and Canada

SEND FOR A COPY NOW. PRICE \$3.00.

Mitchell Brothers Publishing Co., 431 South Dearborn St., Chicago, Ill.

Leading Grain Receivers in all Markets

ATLANTA, GA.
Joseph Gregg & Son, grain and hay brokers.*†

BALTIMORE, MD.
England & Co., Chas., grain and hay receivers.*†
Hax & Co., G. A., grain and hay receivers.*†

BLOOMINGTON, ILL.
Baldwin Grain Co., brokers.
Hasenwinkle Grain Co., grain commission merchants
O'Neill & Gyles, grain brokers.
L. E. Slick & Co., grain receivers and shippers.

BUFFALO, N. Y.
Alder-Stofer Grain Co., grain commission.*
Buffalo Cereal Co., grain.*
Burns Grain Company, grain commission.
Churchill Grain & Seed Co., grain and seeds.*
Harold, A. W., grain merchant.

CHAMPAIGN, ILL.
J. P. Sledge, grain broker.*

CHICAGO, ILL.
Armour Grain Co., grain buyers.*
Bailey & Co., E. W., commission merchants.*
E. G. Butz Grain Co., grain commission.
Canby & Co., C. H., commission merchants.*
Carhart, Code, Harwood Co., grain commission.
Dickinson Co., Albert, seeds.
Dole & Co., J. H., commission merchants.*
Fitch & Co., Walter, grain commission.*
Fraser Co., W. A., grain commission.*
Freeman & Co., Henry H., hay, straw and grain.†
Gerstenberg & Co., grain and seeds.*
Griffin & Company, J. P., grain commission.
Hooper Grain Co., receivers and shippers.*
Hulburd, Warren & Chandler, com. merchants.
Illinois Seed Co., seed merchants.
Kempner Company, Adolph, commission merchants.
Lamson Bros. & Co., commission merchants.*
McDermid & Co., commission merchants.
McKenna & Rodgers, commission merchants.*
Albert Miller & Co., hay and produce.†
Nye & Jenks Grain Co., commission merchants.*
Paynter, H. M., grain commission.
Pope & Eckhardt Co., grain and seeds.*
Rosenbaum Brothers, receivers and shippers.*†
Rumsey & Co., commission merchants.*
Sawyers Grain Co., grain commission.*
Schiffin & Co., Philip H., commission merchants.*
Shaffer & Co., J. C., buyers and shippers.*
Somers, Jones & Co., commission merchants.*
Thayer & Co., C. H., grain and seeds.
Van Ness, Gardiner B., grain commission.*
Vehon & Co., M. L., commission merchants.
Wagner & Co., E. W., receivers and shippers.*
Ware & Leland, grain and seeds.*

CHICAGO, ILL.
Wilson & Co., B. S., grain, seed and provisions.*
Winans & Co., F. E., grain and field seeds.

CRAWFORDSVILLE, IND.
Crabbs-Reynolds-Taylor Co., grain and seeds.*

CROWLEY, LA.
Lawrence Brothers Co., Ltd., grain, nutriline feed.

DECATUR, ILL.
Baldwin & Co., H. I., grain brokers.*

DES MOINES, IOWA.
Lockwood Grain Co., B. A., flour and grain dealers.*

DETROIT, MICH.
Dumont, Roberts & Co., receivers and shippers.*

FORT WAYNE, IND.
S. Bash & Co., grain and seeds.†
Egley-Doan Elevator Co., grain, seeds, hay.*†
Niezer & Co., grain, hay, straw, seeds, coal.*†

GREENVILLE, OHIO.
Grubbs Grain Co., E. A., buyers and shippers.*

HARRISBURG, PA.
Harrisburg Feed and Grain Co., grain and feed.

INDIANAPOLIS, IND.
Bert A. Boyd, grain commission.*
Witt, Frank A., grain commission.

JACKSONVILLE, FLA.
Wilson & Parker Co., commission merchants.*†

KANSAS CITY, MO.
Thresher-Fuller Grain Co., grain commission.*

LANCASTER, PA.
Eby & Son, Jonas F., receivers and shippers.

LOUISVILLE, KY.
Callahan & Sons, receivers and shippers.*
Thomson & Co., W. A., receivers and shippers.

MILWAUKEE, WIS.
W. M. Bell & Co., commission merchants.*
Donahue-Stratton Co., buyers and shippers.*
Fagg & Taylor, shippers.*
Franke Grain Co., receivers and shippers.
Mereness & Potter Co., grain and seeds.*
Mohr-Holstein Commission Co., grain commission.

MINNEAPOLIS, MINN.
McCaull-Dinsmore Co., commission merchants.*
Minneapolis Seed Co., seeds.

NEW CASTLE, PA.
C. T. Hamilton, hay, straw, grain, millfeed, produce.

NEW ORLEANS, LA.
A. F. Leonhardt & Co., grain and hay.*†

NEW YORK, N. Y.
Brooklyn Hay & Grain Co., hay, straw and grain.†
Forbell & Co., L. W., commission merchants.*†
The American Hay Company, hay.†

OMAHA, NEB.
Cavers Elevator Co., receivers and shippers.*
Holmquist Elevator Co., receivers and shippers.*

PEORIA, ILL.
Bartlett Co., S. C., receivers and shippers.*
Buckley, Pursley & Co., commission merchants.*
Dewey & Sons, W. W., grain commission.
Feltman, C. H., grain commission.
Grier & Co., T. A., grain commission.
Miles, P. B. & C. C., grain commission.*
Mueller Grain Co., receivers and shippers.
Rumsey, Moore & Co., grain commission.*
Tyng, Hall & Co., grain commission.*
Warren Commission Co., commission merchants.

PHILADELPHIA, PA.
Delp Grain Co., E. E., grain and feeds.*†
Lemont & Son, E. K., hay, grain, mill feeds.*
Miller & Sons, L. F., receivers and shippers.*†
Richardson Bros., grain, flour, mill feeds.*†

PITTSBURG, PA.
Foster, C. A., grain, hay and feed.*
Hardman & Heck, hay, grain and feed.
Heck & Co., W. F., receivers and shippers.†
McCaffrey's Sons Co., Daniel, grain and hay.*†
McCague, R. S., grain and hay.*
Morgan, H. G., hay and grain.†
Stewart & Geidel, D. G., grain, hay and feed.†

SAGINAW, MICH.
The Henry W. Carr Co., receivers and shippers.*

SALT LAKE CITY, UTAH.
C. A. Smurthwaite Grain & Milling Co., grain, flour, hay, seeds.

ST. LOUIS, MO.
Elmore-Schultz Grain Co., receivers and shippers.
Mullally Commission Co., John, com. merchants.*†
Picker & Beardsley Com. Co., grain, hay and seeds.*†
Prunty, Chas. E., grain and seeds.

TOLEDO, OHIO.
Devore & Co., H. W., grain dealers.
The Goemann Grain Company, grain merchants.*†
King & Co., C. A., grain and seeds.*†
Paddock-Hodge Co., receivers and shippers.*
Raddatz & Co., H. D., grain and seeds.
Southworth & Co., grain and seeds.*†
Wickenhiser & Co., John, grain dealers.
Zahm & Co., J. F., grain and seeds.*†

*Members Grain Dealers' National Association.

†Members National Hay Association.

UNIVERSAL GRAIN CODE

(and Mill Feed Supplement)

COMPILED FOR USE OF

GRAIN and MILLING TRADES

OF THE

United States and Canada

This Code meets the present day requirements of the grain and milling trades—is up-to-date in every respect and thoroughly covers the changes in methods and business that have come into use of late years.

The translation expressions and tabulated matter is a great improvement upon any public grain and milling code now in use, and is an assured factor in saving tele-

graph tolls and misunderstandings in telegraphing.

The Universal Grain Code is being used by many hundreds of the most active firms in the country.

A list of Code Users is sent gratis with every copy of the Universal Grain Code, the names and addresses being published free of charge.

Send for a Copy Now. Price \$3.00.

MITCHELL BROTHERS PUBLISHING CO.

431 S. Dearborn Street

CHICAGO, ILL.

Progressive Grain Men

Are interested in all phases of the grain business, the milling as well as the marketing of grain. They aim to keep in touch with the consuming trade and know what becomes of their grain in the markets of the world. Such men find the

AMERICAN MILLER

a big help because it fully covers the business of milling wheat and other cereals.

Published on the first of each month, it gives all the news of the milling world and prints a large amount of technical matter that is of interest to the elevator man as well as the miller.

We will send the American Elevator and Grain Trade and American Miller to one address for one year at the combination price of \$2.50. Send in your subscription now.

"Better Coal hath no man than this"

GENUINE CARTERVILLE COAL

600,000 Tons per Year
All Sizes

Including 3" x 2" and 2" x 1 $\frac{1}{4}$ " nut, *rescreened* in new revolving screen and *hand-picked*, *guaranteed* to be as good as any *washed* coal in the district.

Mine at Johnston City, Illinois, in heart of Carterville field. C. & E. I. and Mo. P. railroads furnish us competitive rates to nearly all points.

Write us for descriptive circular and delivered prices before buying.

EVERY CAR GUARANTEED

JOHNSTON CITY COAL CO.

OLD COLONY BUILDING

CHICAGO

Merchants and Manufacturers

who contemplate establishing plants
in the West and Northwest should
take advantage of a location on the

Chicago and North Western Railway

which reaches the famous Water
Powers, Coal Fields, Iron Ore Ranges,
Hard and Soft Timber Districts of the
West and Northwest, and affords the
best means of transportation to the
markets of the world.



*The Pioneer Line West and
Northwest of Chicago*

For further particulars
apply to

George Bonnell, Industrial Agent
Chicago, Ill.

NW2011

HOME BANK and TRUST COMPANY

Milwaukee and Ashland Aves.

CHICAGO.

Capital	-	-	\$300,000.00
Surplus	-	-	50,000.00
Undivided Profits			10,138.33
Deposits	-	-	722,499.39

OFFICERS:

R. I. TERWILLIGER, President L. H. PRYBYLSKI, Cashier
CHAS. R. HOERR, Vice-Pres. WM. O. CONRAD, Asst. Cashier

DIRECTORS:

W. A. Wieboldt	B. M. Hair	H. R. Misch
Albert W. Beilfuss	Julius Koop	F. S. Atherton
Dr. K. A. Zurawski	Peter L. Evans	R. I. Terwilliger
Paul Drzymalski	Charles F. Hoerr	Philip Klafter
Ernest Fenske		H. C. Struve

HOW the Engine RAN and WHAT Was SAID.

The CHARTER, way back in the '80s and early '90s, ran so Strongly, Smoothly, Safely, Silently, Savingly, that all observers said

**"Just the Power
for Me."**

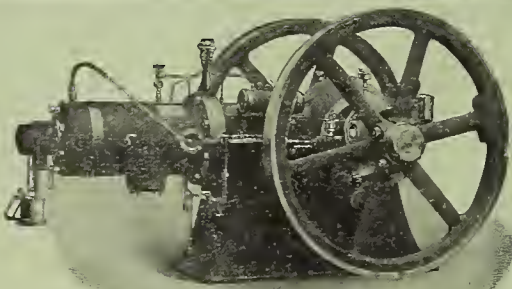
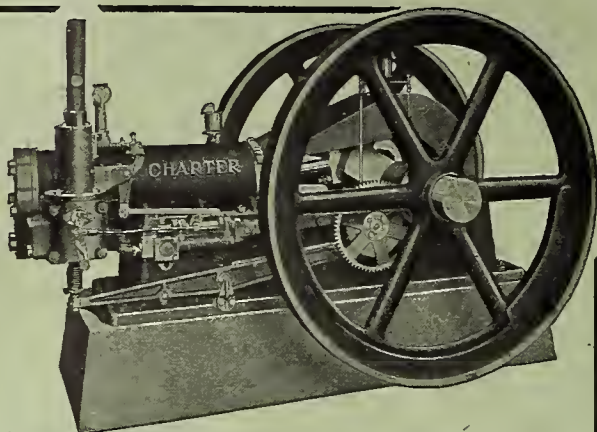
This was before any other Internal Combustion Engine was marketed using Gasoline or any Product of the Distillation of Petroleum, so ever since in our ads we have had

"The Original Gasoline Engine of the World."

We have kept up the Substantial Construction, Simplicity and Efficiency of the CHARTER. Every Auto, Motorcycle, Rail Road Gasoline Motor Car and Air Ship you see dates its possibilities back to our shop and the tens of thousands of dollars spent therein in experimenting in the years between 1882 and 1890. Now we have added and fully proven

The CHARTER TYPE "R" a radical departure from the old line CHARTER. In workmanship, High Degree of Finish and Thorough Honest Manufacture, this type is the outgrowth of nearly 50 years' experience in building and marketing Dependable, Durable and Efficient Machinery, also many more years than any other builder of Oil Engines. Send for catalog showing nearly 300 various uses, and state your power needs.

400 Locust Street **CHARTER GAS ENGINE CO. STERLING ILL., U.S.A.**



It Costs 5c an Hour

to operate a 25 H. P. Muncie Oil Engine, other sizes in proportion.

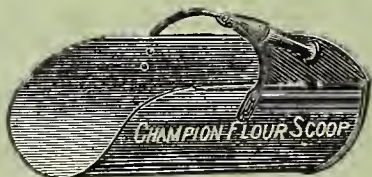
Uses Crude Oil, Fuel Oil, Gas Oil, Solar Oil, Kerosene or Distillate.

But two mechanically operated attachments. Powerful, Simple, Automatic and Durable. Write us.

MUNCIE GAS ENGINE & SUPPLY CO.
Liberty Street MUNCIE, IND

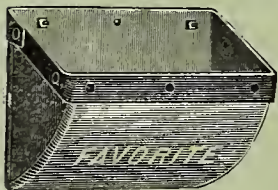
WELLER-MADE

Scoops, Elevator Buckets, Loading Spouts, Screens

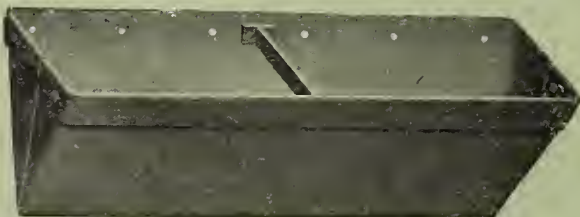


We can also help you with your power-transmission problems. When you need Rope Drive Systems, Gears, Pulleys, Belting, Bearings, Sprockets, etc., you will find it profitable to let us estimate.

Write for a copy of our complete catalog No. 20.



This insures you the highest satisfaction possible.



Weller Mfg. Co., Chicago

and other equipment used for elevating and conveying purposes in elevators and mills, should be specified as **WELLER Made.**

BUCKETS

Standard and Special Styles

For Grain and Ear Corn

Full Lines of Forms and Sizes to Suit Every Man's Conditions and Preferences.

Our great "Acme" Bucket, pressed from one piece of steel, with laps at ends, giving great stiffness without great weight. Made in a large line of sizes.

The well-known and very popular "Buffalo" and "Empire." Also the strong and extra durable "Common Sense."

Buckets for Every Service.

We invite your smallest order for renewals as well as the large ones for new equipment.

The Webster M'fg Company
TIFFIN, OHIO

CHICAGO
815-817 Fisher Bldg.

NEW YORK
88-90 Reade Street



Let us BUY your grain if you wish to SELL
Let us SELL your grain if you wish to CONSIGN

J.C. Shaffer & Company

234 S. La Salle Street, CHICAGO

COMMISSION MERCHANTS
Also
Buyers and Shippers of Grain

W. M. HIRSCHY, Manager Commission Department



The Day Dust Collector

No grain elevator can be complete today without

The Day Dust Collecting System

It is storm proof and spark proof and with no back pressure, the fan does more and better work.

The "Day" Means Quality

Write for particulars

THE DAY COMPANY 38 So. 12th Street MINNEAPOLIS, MINN.